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Massachusetts.

Report of the Commission
on the Taxation of Wild...

Boston

1914

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Massachusetts. Commission on taxation of wild or forest lands.
Report of the Commission on the taxation of wild or forest lands. January, 1914. Boston, Wright & Potter printing co., state printers, 1914.
98 p. incl. tables. (General court, 1914, Senate. Doc., 426)

William D. T. Trefry, chairman.
Running title: Taxation of forests.

VOLUME OF PAMPHLETS

ed. col.

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TECHNICAL MICROFORM DATA

FILM SIZE: 35 mm

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REPORT OF THE COMMISSION

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THE TAXATION OF WILD OR

FOREST LANDS.

JANUARY, 1914.

BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
32 DERNE STREET,
1914.

MR 27 492 17

COMMISSION ON THE TAXATION OF WILD OR FOREST
LANDS.

WILLIAM D. T. TREFRY, *Chairman.*
CHARLES J. BULLOCK.
HAROLD PARKER.
CHARLES H. PRESTON.
F. WILLIAM RANE.

HENRY HERRICK BOND, *Secretary.*

The Commonwealth of Massachusetts.

REPORT OF THE COMMISSION ON THE TAXATION
OF WILD OR FOREST LANDS.

*To the Honorable Senate and House of Representatives of the Commonwealth
of Massachusetts in General Court assembled.*

The commission appointed under authority of chapter 131
of the Resolves of the year 1913 submits the following report:—

I.

The adoption of a constitutional amendment authorizing the classification of wild and forest lands for taxation makes it necessary for this commission to discuss the importance of introducing in this Commonwealth a proper method of taxing forests. We may safely assume that the people of Massachusetts realize that the present method is not adapted to conserve and develop our forest resources, and that some change is desirable and even necessary. We may also assume that it was a recognition of these facts that led the last General Court to authorize the appointment of the commission.

Assuming then that the need of some action is recognized by all or nearly all of our people, the commission has directed its attention to the work of drafting a suitable law for the taxation of forests. We have studied the legislation of other States and countries, as well as the general literature of the subject. We have also made appropriate inquiries into the actual conditions of forest taxation in this Commonwealth. From the local assessors we have obtained information concerning the present area and value of wild and forest lands,¹ and we have also given public hearings in Boston, Greenfield, Springfield, Pittsfield,

¹ A summary of this information is given in Appendix A of this report.

Worcester and Middleborough, at which we were able to confer with persons interested in the subject of forest taxation.

We find that the operation of our present laws relating to the taxation of forest lands is substantially as follows:—

(a) Wild land without timber of merchantable value, usually called cut-over or sprout land, is generally assessed for a period of from fifteen to twenty years at a figure representing more or less accurately the bare value of the land. This valuation ranges all the way from \$1 to \$10 per acre, and may possibly average throughout the Commonwealth \$4 or \$5 per acre. Concerning this class of assessments there seems to be no serious complaint, although in a few cases the commission has been informed that assessors have been inclined to overvalue cut-over or sprout lands. There are doubtless some inequalities in assessments, but these are probably not a serious matter, since the whole tax upon land of such small value amounts to only 5 or 10 cents per acre each year, according to the local tax rates, which are seldom less than \$10 per \$1,000 or more than \$20 per \$1,000. There is undoubtedly room for improvement in the assessment of this class of property, but no difficulties arise except such as are encountered in the valuation of any sort of real property. Our local assessors frequently do not give as much time and attention to their work as is desirable, but, upon the other hand, they are almost everywhere underpaid, and as a rule render much more and better service than towns and cities have any right to expect for the inadequate compensation that is usually given. It does not fall within the province of this commission, however, to consider the general administration of our tax laws, and we merely refer to this subject for the purpose of making clear what the existing conditions are.

(b) Land having upon it timber of merchantable value, which under favorable conditions means timber of more than fifteen or twenty years' growth, is assessed at a higher value than cut-over or sprout land, but usually at a figure materially less than the full value of the land and the standing timber. The general practice of assessors is to begin when trees have reached a growth of fifteen or twenty years, and add to the bare value of the land an amount believed to represent the

value of the young trees. Thereafter, at more or less irregular intervals, averaging perhaps five years, the assessors increase the valuations of wood lots, but do not always or perhaps often inspect growing timber with as much care as is necessary, so that the valuations are frequently haphazard and therefore unequal. Here, again, we encounter the difficulties necessarily incident to assessment by local boards of assessors, generally underpaid; but we have found no reason to doubt that in the main the assessors seek to do the best they can for their towns or cities under the circumstances, and to deal as fairly as possible with individual landowners. Where assessors happen to have expert knowledge of forest conditions and timber values and are interested in this branch of their work, conditions are very much above the average; but where, upon the other hand, the assessors have no such expert knowledge, and have no special interest in the assessment of wood lots and sprout lands, the work of assessment may be done so poorly as to become farcical.

(c) As a general rule, growing timber is undervalued in the Commonwealth for the reason that the local assessors know very well that, if they assess it at the true value, the land will very soon be cleared and can thereafter be taxed only at some such figure as \$5 per acre. They therefore endeavor to fix valuations which will secure for their towns or cities as much revenue as can be had without leading to premature cutting and a subsequent loss of revenue. If they happen to know that timber, either mature or immature, is likely to be cut before long, assessors in some cases will greatly increase the assessments in order to obtain as much revenue as they can for a year or two before the timber is removed from the land. As a rule, then, we find that timber values are assessed by a more or less haphazard method, which results in assessments usually less than the full commercial value, and which does not in most cases greatly contribute to premature cutting. Such haphazard methods, however, lead to great inequality in individual assessments. It may be well to add that in this particular the experience of other States is like that of Massachusetts. Existing tax laws do not greatly contribute to premature destruction of timber because the assessors undervalue this class of property.

(d) While undervaluation is the general rule, there undoubtedly are individual cases of overvaluation. By overvaluation we mean assessment at more than the commercial value of the timber. Some such cases have been brought to the attention of the commission, but we have no reason to think that they are more than sporadic instances such as may be found in the assessment of other classes of property.

(e) In a certain number of cases we find that assessments have been placed at a figure which, while less than the true commercial value, has been high enough to force premature cutting of timber. We are of the opinion, moreover, that this tendency is upon the increase, because growing expenditures and supervision of local assessments by the Tax Commissioner have in late years led to a general increase of real estate valuations. We believe, moreover, that this tendency will continue, and that premature cutting will be more common in the future than in the past if our tax laws are not changed. Here, again, we find that the situation in Massachusetts is precisely similar to that of many other States. If it is true, as every investigation made in the United States indicates, that, in the past, undervaluation of growing timber has prevented our present tax laws from contributing greatly to the destruction of forests, this is less likely to be true in the immediate future. Assessments upon this class of property seem to be rising, and complaint of premature cutting is becoming more common. Of this tendency New Hampshire affords the most striking illustration.

(f) While we find that existing tax laws have not greatly contributed to produce reforestation, we also find that the only reason they have not done so is that they have not been enforced. The law of the Commonwealth now requires that property shall be assessed at "a fair cash valuation." In the case of timber land this means that as soon as trees become large enough to be of any use for fuel, poles, fence rails or box-wood, they must be assessed at their commercial value. If this were actually done in every city and town in the Commonwealth there would not be left, after a few years, any timber of more than twenty or thirty years' growth. And it is not done because the assessors have followed the dictates of common sense

rather than the law of the Commonwealth. It has been represented to the commission at some of our hearings that there may be no need of changing the law relating to the taxation of forests, because the assessors know how to administer it in a manner that prevents deforestation; but this view of the case is inadmissible. Tax laws, like other laws, are made to be enforced, and the Commonwealth cannot afford to retain a method of taxing forests which offers local assessors no alternative but to value woodlands at a figure that will force premature cutting or violate their oaths of office. Such a situation is inherently immoral and demoralizing. It is also economically and financially inexpedient and demands an appropriate remedy.

(g) The most obvious practical result of the prevailing undervaluation of forest lands is to make assessments wholly arbitrary and therefore unequal. Assessors, when they aim at anything less than the true commercial value, are left without any definite standard, and necessarily adopt more or less arbitrary methods. Moreover, when assessments are not expected to conform to commercial values, irregularities are bound to creep in, and in many cases escape detection. Assessment at the true commercial value is the only method that can secure equality between individual taxpayers. Since, however, the assessment of standing timber at its full value would prove disastrous, we conclude that, if we are to have certainty and equality, we must change our method of taxing forests.

(h) Another and perhaps the most serious result of the present system is that it makes impossible the proper utilization of forest lands. A growing tree produces little timber in its early years, and not until it reaches a certain age does it produce a substantial amount of timber. It is therefore necessary for trees to reach a condition of comparative maturity if the land is to produce an adequate timber crop. Premature cutting means that the land is always covered with small trees that yield a small annual crop, which is equivalent to saying that the production of timber is small. It is estimated that the forests of the United States yield to-day only one-fourth or one-fifth of the timber that they would produce under a proper system of management, and this is as true of Massachusetts

as of the rest of the country. Now, under present conditions, capital cannot be invested in the cultivation of timber by approved forestry methods. The crop is always threatened with excessive assessments which will force premature cutting and result in a small production of timber. Here, as elsewhere, capital must be given reasonable security, and must be assured at least that forest land can be utilized in the most economic manner. At present such utilization depends upon the arbitrary decision of the local assessors, who have it in their power to foster timber culture by undervaluation or discourage it by enforcement of the law. Under such conditions capital cannot undertake to carry on the forest industry systematically, since it is wholly at the mercy of the assessors and is always subject to the danger of overassessment.

II.

Before devising a new system of forest taxation, the commission examined the systems in operation in other States and countries, as well as the special literature upon the subject.

European conditions naturally invite attention because most of the European countries have been long engaged in the work of conserving forest resources. The commission has secured from Prof. Fred R. Fairchild, of Yale University, who has given more attention to this subject than any other American, a valuable report upon "The Taxation of Forests in Europe," which we submit as Appendix B of this report. Professor Fairchild shows that European methods of taxing forests are much in advance of American; that the tax burden is usually moderate; and that taxes are imposed in such a way as to have a close relation to the income obtained from forest property. Nevertheless, forests are made to bear their fair share of the burden of taxation, because the lower rates and better methods make good forest management possible and therefore result in a much larger timber crop.

This subject was also studied by the committee appointed in Massachusetts in 1905,¹ and the conclusion reached was that European methods "are in advance of our own because they recognize the fundamental principle that taxes should not lead to devastation or slovenly forestry."

¹ House Document, No. 134 of 1906.

The commission finds that the lessons to be derived from European experience are: (1) that it is impossible to tax forests satisfactorily by any one tax levied as the general property tax in the United States is levied, and that the best results are secured by a combination of two or more taxes; (2) that, where the general property tax is applied to forests in Europe, either the rate is very low or the method of assessment is upon a different basis from that which we employ in the United States, being adjusted more or less accurately to the income derived from the land; (3) that taxation adjusted to the income from forest lands seems to work better than any other single kind; (4) that probably the best results are obtained from a combination of land and income taxes.

These conclusions we will not undertake to justify here, and will merely refer to Professor Fairchild's report and to other literature upon the subject.¹ No one who will study the subject can question the conclusion that a general property tax levied upon the fair cash value of growing timber, at the high rates which prevail in the United States, finds no support in European experience, and would prove as destructive of good forest management there as it has in this country. No European country has yet solved all the problems connected with forest taxation, but in general it can be said that the countries of Europe tax forests by a variety of methods which permit trees to reach maturity, encourage economic utilization of forest lands, and operate with reasonable satisfaction. In all its larger aspects the problem of forest taxation may be said to be solved, and the points that are still subject to discussion relate merely to the improvement of methods already immeasurably superior to our own.

For ten or twelve years the question of forest taxation has received much attention in the United States. Prior to that time various States had endeavored, by offering bounties or granting exemption of young forest plantations, to encourage the growth of forests. But it became evident by the close of the nineteenth century that these methods were wholly inadequate to deal with the problem. The experience of all States seems to have been the same. Bounties accomplished nothing

¹ Of the German works perhaps the best is Weber, *Die Besteuerung des Waldes* (Frankfurt, 1909).

worth mentioning except in Minnesota, and then at an excessive cost. Exemptions have accomplished little because what has been taken off the exempted woodlands has frequently been added to the assessment of the owner's farm or other property, and because, even if this had not been the case, the forest would have become subject at the end of the exemption period to a system of taxation wholly destructive if strictly enforced. We find that no one who has investigated the subject has reached any other conclusion, and therefore conclude — as did the committee appointed in this State in 1905 — that neither exemption nor bounties can meet the needs of the case, and that the only remedy is a change in the method of taxation. Moreover, we believe that, except in unusual cases, bounties are wrong in principle. To secure the reforestation of mountain slopes that need to be kept under permanent forest cover, a government may be justified in offering pecuniary inducements; but under ordinary conditions timber production no more needs, nor should receive, a bounty — or exemption from taxation — than the production of any other crop. Forests can and should be taxed, and other countries have made them a reliable and productive source of revenue. In Massachusetts we believe that it is possible under proper conditions for the forest lands of the Commonwealth to yield much more to the public treasury through taxation than they can possibly contribute under the present uneconomic methods of cultivation. What is needed is a reasonable system of taxation suited to the peculiar conditions governing the production of timber, and, with this provided, we believe that forests may be made the source of increasing revenue to the public treasury.

The commission finds that the proper method of forest taxation has been the subject of much investigation in the United States, and that fortunately there is practically complete agreement concerning the principles that should govern such taxation. Referring to some of the literature upon the subject¹

¹ Report of National Conservation Commission, Vol. 2, pp. 531-532; Fifth National Conservation Congress (1913), report of Forestry Committee, section 2; Proceedings of National Tax Association, Vol. 2, pp. 69-96, Vol. 5, pp. 371-393; Report of Massachusetts Committee on the Taxation of Forest Lands, House Document No. 134 of 1906, pp. 19-22; Report of Michigan Commission on Tax Lands and Forestry, pp. 30-36; Report of Wisconsin Board of Forestry on Taxation of Forest Lands in Wisconsin (1911), pp. 70-80; Report of Connecticut Commission on Taxation of Woodland (1912), pp. 19-35.

for further details, we will briefly call attention to two principles which are fundamental:—

First. — Timber differs from other productions of the soil because many years are required for a crop to reach maturity, and because after a growth of fifteen or twenty years — but long before maturity has been reached — the growing crop begins to have some commercial value. If, now, growing timber is taxed at its full commercial value in each year of its growth, the result will be that, beginning in the fifteenth or twentieth year, the owner will have to advance taxes upon a crop that is yielding no immediate return. These advances will increase in amount as the timber becomes more valuable, and the interest upon them will steadily rise until it reaches a sum that exceeds the taxes themselves. The result is that, if the trees are allowed to stand until they reach maturity, the taxes and accumulated interest wipe out any possible margin of profit. There is also, under present conditions, a serious fire risk, which endangers not only the growing crop but also the heavy advances made for taxes. We are reliably informed that, under present conditions in Massachusetts, and assuming that growing timber is somewhat undervalued by the assessors, forestry offers nothing better than a "risky 4 per cent. investment." Whatever the exact figures may be, we find there is complete agreement that, if we assume that the present tax laws will be fully enforced, capital cannot to-day enter the forestry industry in Massachusetts with the expectation of profit. Such investments as are made under present conditions are premised upon the assumption that growing timber will continue to be undervalued; that is, assessed for less than the true commercial value.

Second. — Since the forestry industry requires the investment of capital in the production of a crop that does not mature for many years, taxes as far as practicable should be collected at the time the crop is harvested; that is, when the timber is cut. With forests cultivated for a sustained yield, and showing therefore a regular annual income, a simple income tax upon the net income of the forest industry conforms perfectly to this principle. Where, however, there are not established forests which are scientifically cultivated for a sustained yield, the tax

upon the net income is impracticable, and the best thing that can be done is to impose a tax upon the gross value of the timber when cut. This plan levies the tax at the time the owner of the timber sells his crop, and thus eliminates the item of accumulated interest upon taxes advanced during the period of growth. It requires the government to do what the landowner must do when he engages in forestry, namely, wait some forty or fifty years for the income. Obviously the tax upon the gross value of the cut should be of such amount as will yield a substantial revenue and confer no special privilege or exemption upon the landowner. Its functions should be to make the time of payment coincide with the time the owner secures an income from his land, thus eliminating the taxation of the growing crop. Both the income tax and the tax on the timber when cut imply the abandonment of the property tax and the adoption of the principle of income taxation.

These general conclusions we believe to be beyond dispute. The commission regards it as fortunate that, in undertaking to draft a new law for the taxation of forests, it has been able to start with general principles concerning which there is universal agreement, reached as the result of many years of study and public discussion.

Since 1911, five States, namely, Michigan (1911), New York (1912), Pennsylvania (1913), Connecticut (1913), and Vermont (1913), have enacted forest tax laws based upon the general principles above stated. Without entering upon details, it may be said that these laws undertake to tax forests upon the value of the cut, thus adopting the principle of collecting the tax at the time the land yields an income to the owner. They also in most cases combine with the tax upon cut a light annual tax upon the land or upon the crop at a fixed valuation, such tax being a departure from the income tax principle necessary to meet certain practical conditions of forest taxation. This recent legislation the commission has carefully studied, and our secretary has visited Connecticut, New York and Vermont, in order to confer with the State Tax and Forest departments upon the subject. We find the legislation to be based upon approved principles, and find many details that deserve commendation. We believe, also, that at some points Massachusetts can improve

upon the acts recently adopted in these other States, and that local conditions make it very necessary to do so. We consider it fortunate that, in devising a new system of forest taxation, Massachusetts may profit by other experiments made in this field.

III.

Starting with the principle that forest lands ought to be taxed upon their income, the commission has sought to find the best practicable method of applying this principle to the conditions which exist in Massachusetts. Since we have not, and for many years cannot, have forests cultivated for a sustained yield, a simple tax upon the net income from forests is not practicable. In time, if conditions change, such a tax may become preferable to any other; but at present it is necessary to adopt a tax upon the timber when cut, which is a tax upon the gross income from forests.

While the tax upon the cut must be the principal tax, we believe it is not the only one that is needed, since in many districts land is so valuable that it would be very undesirable to exempt it from annual taxation. Such a course would encourage land speculation rather than timber culture, and would be in all respects unjustifiable. We therefore believe that the tax upon the cut should be supplemented by an annual tax upon the value of the land, exclusive of the trees growing thereon. This will make it unprofitable for any one to devote to forestry land that has a higher commercial value for agricultural, building or other purposes. It will tend to restrict the forest industry to lands having little or no value for other uses, which it is obviously desirable to devote to forestry. Massachusetts has a very large acreage of such lands, amounting to nearly three-fifths of the total area of the Commonwealth; and by combining an annual land tax with the tax upon the cut, we shall make it certain that the operation of our new law will be confined to lands naturally suited to forestry and to nothing else. If any one undertakes to produce timber upon other lands, the land tax will be so heavy as to make the investment unprofitable.

For such a combination of income and land taxes we have

valuable precedents in Europe and in the recent legislation of some of the American States previously mentioned. Timber differs from other products in important particulars, and a single tax upon income, upon land, or upon the capital value of forests, does not seem to meet the requirements of the case as well as a combination of taxes. We believe therefore that in proposing such a combination we are supported by the best of precedents.

The commission would greatly prefer, if it were practicable under the conditions existing in Massachusetts, to recommend the immediate exemption of growing timber from taxation, the retention of the tax on forest lands, and the introduction of a tax upon timber when cut. If it were possible to limit our recommendations to these three points, we could draft a brief act comparatively simple in its provisions.

Such a course, however, would mean an abrupt transition from conditions under which many towns derive substantial revenues from growing timber to conditions under which these revenues would be lost, and the towns required to wait for some years before any considerable revenue would be received from the tax upon cut timber. This would seriously embarrass the finances of many towns, which would be most undesirable. The situation would be aggravated by the fact that woodlands are frequently owned by nonresidents and corporations, so that if growing timber were at once exempted from taxation many towns would lose considerable revenue now derived from nonresidents, and would have to increase the taxes upon residents.

This very practical consideration has led to the proposal that timber should be exempted, and that the State should then act as banker for the towns. This might be done by having the State assess and collect the tax upon cut timber, and, upon the security of this resource, reimburse the towns for the present taxes upon growing timber. Such a plan is undoubtedly practicable, but it would require the transfer from the towns to the State of the taxation of wild and forest lands. We do not believe that this necessary detail of the scheme would find favor in Massachusetts. It would have the disadvantage of decreasing the functions, and therefore the importance, of local assessing boards. The assessment of property must always remain

in considerable part a local function, although supervision by the State is becoming increasingly necessary. We believe, however, that State supervision need not and should not decrease the importance of the work of local assessors, and we believe that the withdrawal of wild and forest lands from local assessment would necessarily have this result.

We have therefore been obliged to find some other method of safeguarding the revenues of forest towns during the period of transition from the present tax upon growing timber to the new tax upon cut timber. Without such provision we should not venture to recommend any plan to the favorable consideration of the General Court.

We find that all the needs of the situation can be met by adding, to the land tax and the tax upon cut timber, a third tax levied in fixed amount upon growing timber subject to taxation in the year 1913. This tax, which would be in commutation of existing liabilities of timber owners for taxation upon the growing crop, we have called a forest commutation tax. It should be levied upon growing timber subject to taxation in the year 1913, and in an amount equal to the taxes which such timber paid in that year. Since little timber is to-day assessed at a figure which, if not increased, would compel the owner to cut it before maturity, this tax will not force premature cutting, and it will secure to landowners conditions that will make it possible for them to utilize existing forests in an economic manner. It will also insure to the towns the continuation of the present revenues derived from standing timber, and will thus avoid embarrassment of their finances.

In short, what we propose is that the towns shall not increase existing taxes upon growing timber, and that, in lieu of such increase, they shall, when the timber reaches maturity, collect a substantial tax upon the cut. This will enable landowners to manage their forests economically, insure towns against loss of present revenues, and ultimately reimburse towns for foregoing their right to increase present taxes upon such timber. It also requires a system of registering forest lands, and therefore somewhat complicates the new plan of forest taxation. Instead of a short act exempting growing timber and imposing taxes upon land and upon timber when cut, the commission is obliged

to propose a somewhat longer law which provides for a commutation tax and a system of registering forest lands.

The greater length and complexity of the measure we propose are due wholly to our decision to provide for a commutation tax, but we believe that the general principles of our measure are simple, and that its detailed provisions are not more complicated than the practical requirements of the situation demand. Our plan is certainly simpler than would be the alternative, mentioned above, of turning the assessment of forest lands over to the State; and it will be found also that the plan of registration has certain advantages in that it enables the Commonwealth to impose reasonable requirements upon landowners who receive the benefit of the new system of taxation. In short, we are satisfied that the principles underlying the act are clear, that its provisions are simpler than those of any practicable alternative, and that the requirement of registration of forest lands has certain distinct advantages.

IV.

The commission submits in Appendix C a draft of a bill providing for a system of registering or classifying wild and forest lands under which other taxation will be abolished, and the lands will become liable to a forest land tax, a tax upon cut timber, which we have called a forest product tax, and a tax of fixed amount upon growing timber, which we have called the forest commutation tax.

The general provisions of this measure were briefly outlined at several public hearings, and when the first tentative draft was completed it was widely distributed, in order that the commission could have the benefit of such suggestions and criticism as might be offered. As a result we have received valuable suggestions and criticism, and have been able to improve materially the details of the proposed act.

Section 1 of the proposed act provides for the registration of wild and forest lands under a suitable classification which distinguishes between land containing no timber (which we have called plantation), land containing timber of merchantable value (which we have called wood lot), and tracts of woodland that it may be desirable to reserve as forest reservations.

Sections 2, 3 and 4 provide a system of local registration or classification, through town or city clerks and local boards of assessors, of such lands as owners may desire to register under the proposed act. Lands not so classified will continue to be taxable as at present, a provision which has the advantage of making it certain that the new system of taxation will be gradually introduced and will be applied only to lands the owners of which are interested in timber culture. These sections also provide a simple method of appeals to the State Forester and the Tax Commissioner in case landowners are dissatisfied with the findings of the local officials. They also provide that, before classification, separate valuations shall be made of the land and the timber growing thereon, thus affording the information necessary for the subsequent assessment of taxes.

Section 5 exempts classified lands from ordinary taxation, but makes them liable for special assessments. It provides also that buildings shall be taxed like buildings upon any other land.

Section 6 provides for an annual tax upon the value of the land, exclusive of growing timber, which we deem necessary in order to prevent abuse of the privilege of classification. Lands suitable for forest culture range in value from 50 cents to \$10 per acre, and their average value may be about \$5 per acre. Upon such valuations, timber owners can afford to advance, during the years required for the growth of timber, the small amount of money the annual taxes represent, which advances we later take into account in determining the rate of tax imposed upon the timber when cut.

Section 7 provides for the forest commutation tax which must be paid by all lands classified as wood lot, and from which lands classified as plantation are exempt. In general this tax aims to continue in operation the taxes which growing timber actually paid in 1913. The proper method of doing this is to determine what each wood lot paid in the year 1913, and subtract from that figure the tax paid in respect to the bare value of the land, the remainder representing the tax paid in respect to the growing timber. The simplest plan would be to make such a computation for each wood lot when classified, and to continue in operation the commutation tax thus determined

for each lot until the timber is removed therefrom. But this method would have the disadvantage of perpetuating whatever inequalities existed in 1913 in the assessment of woodlands, and we have therefore felt obliged to provide some method of equalizing the forest commutation tax. Taking the town as the unit for purposes of taxation, we have provided that for a period of five years, subsequent to the passage of the act, all wood lots classified in any city or town shall have the benefit of an annual equalization of forest commutation tax. This can be secured by determining the amount of taxes paid by each lot in 1913, adding these amounts together, subtracting the amount of forest land tax levied in the city or town, and then apportioning the remainder among the wood lots in proportion to the true valuation of the growing timber on each tract as determined at the time of classification.

Since it is not desirable to continue such an annual computation indefinitely, we suggest that, at the expiration of five years from the enactment of the proposed law, equalization shall cease, and also that the amount of commutation tax shall no longer be determined upon the basis of the 1913 assessment. Five years would seem to be ample to give landowners an opportunity to classify their lands, and we have provided that wood lots classified after April 1, 1919, shall pay a commutation tax equal to the tax assessed upon the land and growing timber in the year prior to classification, less the amount of land tax levied and assessed in the year subsequent to such classification.

Forest commutation tax obviously should not outlast the timber growing upon wood lots at the date of classification. Under the present system the tax upon growing timber disappears when the timber is cut, and so under the new system the commutation tax must ultimately come to an end. It is indeed a temporary tax designed to bridge over the transition from a property tax to a system of income taxation. In a generation or two forest commutation tax will disappear, and all timber standing upon classified land will be timber that has grown since the date of classification. Ultimately, then, wood lots will pay but two taxes, namely, the land tax and the tax upon cut timber; but meanwhile the productivity of forests

will have increased to such an extent that the tax upon the cut will yield more revenue than our present taxes upon growing timber. The proposed act provides, therefore, that when timber subject to the forest commutation tax is cut or is destroyed by fire, the amount of forest commutation tax shall be proportionately reduced. In this manner forest commutation tax will gradually disappear.

Section 8 provides for the tax upon cut timber and other forest products; this we have called forest product tax. It requires annual reports of all timber cut from classified lands, and makes suitable provisions for the collection of the tax assessed thereon. It also exempts from forest product tax timber not exceeding \$25 in stumpage value which any owner of classified land cuts for his personal use, so that farmers will not be taxed upon firewood consumed in their households.

Forest product tax is to be assessed upon the stumpage value of the timber, by which is meant the value of the timber upon the stump. In this manner we eliminate the value added by cutting the wood and transporting it to market. The cost of cutting and transporting wood varies very greatly, according to the kind of wood and the situation of the land, and we deem it impracticable to assess forest product tax upon any other value than that which the timber has upon the stump. By adopting this basis, hard wood, soft wood, wood cut from remote lots, and wood cut from lots near the market will be taxed upon an equal basis, since the stumpage value accurately reflects such elements as the cost of cutting the wood and transporting it to market. The stumpage value is also readily ascertained by the assessors, so that this method is as convenient and as certain in its operation as any that could be provided.

The rate of forest product tax is a matter that has required very careful consideration. This is to be the principal tax imposed upon forests, and its amount must be high enough to afford a substantial revenue and yet not so high as to discourage forestry. As said before, the commission believes that no special favors need be extended to this industry, and that all that is necessary is the elimination of the requirement that large amounts of taxes must be advanced upon a growing crop, by reason of which the profits of cultivation are eaten up by the

accumulated interest. We have therefore sought to arrive at a rate of taxation which, taken in connection with forest land tax, shall impose upon classified lands substantially the same burden that such lands would bear if they were devoted to the production of an annual crop. We have aimed, in other words, to put forest lands upon the same basis as agricultural, and neither to extend to them special favors nor to impose upon them the burden of heavy accumulations of interest upon taxes advanced on growing crops.

In determining the rate of product tax that will equalize the taxation of forest and agricultural lands, we have based our calculations upon the assumption that land classified under this act is without value except for forest purposes. This assumption will fairly represent the conditions that will obtain, because the operation of forest land tax will discourage the classification of land adapted to other purposes. Land suitable only for silviculture may be regarded as an investment which yields an income only at the end of a period averaging about fifty years, which we believe will fairly represent the average rotation period under forest conditions in Massachusetts.¹ This income may be regarded as consisting of the wood the land produces during the fifty-year period by annual increments of growth, which are small in the early years of the investment and large in the later years. Or, looking at the problem from the pecuniary point of view, we may regard the income as consisting of a certain sum of money representing the stumpage value of the timber on the land at the end of the fifty-year period. It is only the wood, or the money obtained from the sale of it, that gives the land we are considering any value; and in order to determine the value of such land, for the purpose of taxation, we need to determine the value of this income.

If we had data showing the annual rate of growth of the various kinds of trees produced in Massachusetts, we might undertake an estimate of the value of this income, considered as a certain product of wood; but, since such figures are not available, we must rather consider the income as the money received from the sale of the timber. Treating the problem in this manner, we need to determine the value for the purpose

¹ The recent acts passed in Connecticut and Vermont assume a fifty-year rotation period.

of taxation of an income received at the end of a period of fifty years.

The exact rate of interest which should be assumed for capital invested in forestry in Massachusetts is not easy to determine, but the commission believes that it should be not less than 8 per cent. Money deposited in a savings bank, or invested in some equally secure way, yields 4 per cent. above taxes. To this figure something must be added for profits of management and insurance against loss by fire or otherwise. Neither of these items can be determined with exactness, but we believe that they should be estimated at about 4 per cent. We therefore arrive at a rate of 8 per cent. which should be assumed for forestry investments in Massachusetts. As before stated, under present conditions we are informed that forestry offers nothing better than a "risky 4 per cent. investment," and we believe that, taking all considerations into account, it ought to offer a much higher return. Since under our bill operations will be substantially limited to land worthless for other purposes, which it is highly desirable to utilize for forestry, we believe that it will be fair to assume an 8 per cent. interest rate, to cover interest on capital, profits of management and fire risk. That this rate is reasonable will be readily seen when it is considered that the preferred stocks of Massachusetts corporations ordinarily yield 6 or 7 per cent., and are exempt from taxation in the hands of the investor.

If the land yielding an income once in fifty years is to be treated like other property, for the purpose of taxation, it obviously should be taxed in each year of the fifty-year period at the current rate of taxation upon the present value of the income received at the end of the period. If we assume an interest rate of 8 per cent. and a tax rate of \$17.39, the average rate in Massachusetts, the sum of the taxes payable in all of the years included in the fifty-year period is \$0.21274 upon each dollar of the income. This means that a tax of approximately 21 per cent. would represent the sum of the accumulated taxes at the present average rate upon the value this income had in each year of the fifty-year period, and this figure we have taken as a basis for our calculation of a proper rate of forest product tax.

This calculation is wrong

805 17.39
 1600
 130
 596
 21737

The next factor to be considered is that the present average tax rate of \$17.39 is not levied upon agricultural land — with which forest land is most nearly comparable — at its full value. We find that it is a common practice in the towns to assess farm lands at about two-thirds of their market value. Doubtless there are cases in which lands are assessed at their true value or even more, but there are probably as many others in which the assessment is less than two-thirds of the true value. If, then, forest lands are to be taxed in the same manner as agricultural, we must compute forest product tax upon the assumption that the true value of taxation upon agricultural lands is only two-thirds the average rate of taxation used in the above computation. Making this correction, we reduce the rate of forest product tax from \$0.21274 to \$0.14182 upon each dollar of the stumpage value. A tax of this amount, then, if levied in lieu of all other taxes, would place forest lands upon the same basis as agricultural. It would differ from the taxes imposed under the present system, assuming a full valuation of growing timber, simply by reason of the fact that it would not require the landowner to advance the taxes in each year of the rotation period, but would defer payment until the crop of timber had been marketed.

It is now necessary to allow for the fact that under the proposed bill forest product tax is not in lieu of all other taxes. The landowner must pay forest land tax upon the value of the land, exclusive of growing trees, in each year of the fifty-year period, and he must therefore advance a considerable amount of taxes which, with the accrued interest, will amount to a substantial sum. Assuming that the average value of the land exclusive of trees is \$5, which we believe to be the average value of the lands in this State that are suitable for forest purposes, and assuming an average tax rate of \$17.39, we find that in fifty years each acre of land will have paid taxes which, with accumulated interest compounded at 5 per cent., amount to \$19.11. If we assume, furthermore, that each acre of land yields at the end of fifty years, under proper utilization, 30,000 feet of timber with an average stumpage value of \$8, or a total value of \$240, it appears that upon each dollar of the stumpage value the accumulated forest land taxes with interest will have

method of increase

amounted to \$0.0796. Deduct this sum from \$0.1418 and we get as the proper rate of the forest product tax \$0.0622 upon each dollar of the stumpage value of the timber, or a tax of approximately 6 per cent.

This figure we believe will secure substantial equality in the taxation of forest and of agricultural land. It will extend no special favors to the forest industry, but will merely exempt the landowner from the necessity of advancing taxes upon a growing crop during an average period of fifty years. It will impose upon timber when cut a tax substantially equal to the sum of the taxes which the timber would have paid if it had been assessed upon its true discounted value in each year of its growth. In making the above allowance for forest land tax we have assumed that the land is worth \$5 per acre exclusive of the timber. If the timber is raised upon land worth less than \$5, the landowner will gain an advantage in taxation, so that the system we propose will tend to encourage the culture of timber upon the cheapest available land, which is precisely the land that should be utilized for forest purposes.

The rate of 6 per cent. which we recommend for forest product tax is based upon the assumption that the land has paid no tax but forest land tax during the fifty-year period. It must be modified to meet the case of lands classified as wood lot, which have not benefited by the new system of taxation during the entire life of the crop. Timber cut from wood lots within five years after classification has paid substantial amounts of taxes during the greater part of its growth, and should pay a low rate of product tax; timber cut within a period of six to ten years should obviously pay a somewhat higher rate; and in similar manner the rate should gradually rise, by five-year periods, according to the time land has been classified, until after twenty-five years the full rate of 6 per cent. should be imposed.

In determining the rate of forest product tax it would be logical to base the tax upon the number of years each individual tract has been classified, and, if no other consideration entered in, the commission would recommend such a method. This plan, however, would have the disadvantage of imposing different rates, varying from 1 to 6 per cent., upon wood cut

from different tracts in the same town in the same year. This would greatly complicate the administration of the law, and would have the effect of imposing the higher rates upon the lands classified soon after the law goes into effect. Both of these results would be unfortunate, and we therefore recommend that the rate of forest product tax shall be computed from the year of the passage of the proposed law. This plan will work no injustice, since all landowners will have the same opportunity to secure an early classification of their land. It will greatly simplify the administration of the law, and will not work to the disadvantage of those persons who classify their lands promptly, and thus contribute to the success of the new system of forest taxation.

We recommend, also, that the same method be applied to lands classified as plantations. It would be logical, indeed, to apply the full rate of 6 per cent. to all timber cut from plantations even at the outset. But it should be borne in mind that very little timber will be cut from such lands during the first twenty or twenty-five years the law is in operation, and that such cuttings as are made will usually be improvement cuttings, which should be encouraged since they increase the ultimate productivity of the land. Such cuttings can be encouraged, and the administration of the law simplified, by applying the same rate of forest product tax to plantations as to wood lot; and we therefore recommend the adoption of a single scale of rates, graduated according to five-year periods, dating from the year of the enactment of the proposed law.

Section 9 of the proposed act provides under suitable restrictions for a system of forest reservations under which cities and towns may, if they desire, exempt from taxation tracts of woodland adapted to the purpose of public recreation. This we believe to be a desirable experiment, and we believe that it can be attended by no disadvantages. Under it a way may be opened by which cities and towns may secure without material expense a substantial addition to their facilities for public recreation.

Section 13 provides for the consolidation of wood lots and plantations held by a single owner in a city or town. At present our wild and forest lands consist largely of small tracts

which must be classified separately under the proposed act. It is desirable, however, and very necessary for proper forest management, that in the course of time there shall be developed forests of considerable size, and these must obviously be formed by the consolidation of smaller tracts, gradually brought together by purchase or exchange. Obviously such holdings should be classified as single tracts in order to simplify the administration of the taxes to which they will be subject; and we have therefore provided a suitable method of consolidating classified lands into forest.

Sections 14, 15 and 16 provide for sales and withdrawals, and we believe they sufficiently safeguard the interests of the public in such matters.

Sections 17 and 18 provide for certain details of administration, most of which require no comment. We call attention, however, to the provisions of the last paragraph of section 18 by which the Tax Commissioner is authorized to call upon individuals, firms or corporations, for any information that may be needed to insure the proper collection of the taxes imposed by this act, and is authorized further to examine their books, accounts and papers. This provision confers a power similar to that which the Tax Commissioner now exercises in the taxation of corporations. In practice the Tax Commissioner seldom finds it necessary to examine the books of corporations, and the same will probably prove true in the taxation of forest lands. We believe, however, that the existence of such a power will prove a valuable safeguard against evasion of the forest product tax.

Section 19 provides that the valuation of trees standing upon classified lands shall not be included by the Tax Commissioner in the apportionment of State and county taxes, but that whenever forest product tax is levied, the Commonwealth shall receive 10 per cent. of the amount of such tax. This arrangement we believe to be both just and expedient. Under this act the cities and towns will be required to exempt from taxation growing timber, except in so far as such timber may pay forest commutation tax, and to defer the collection of taxes upon timber to the time when the trees are cut. We believe it is fair that during this period, when the collection of taxes

upon timber values is deferred, such values should be exempted from taxation by the State or county; and it is also fair that, when the deferred tax is finally collected, the State should receive a reasonable proportion of it. We have fixed this proportion at 10 per cent., which roughly represents the proportion that now exists between the direct State tax and the taxes assessed upon property by the cities and towns. It would be perfectly logical to provide that part of the forest product tax should go to the counties, but since within any county forest conditions are substantially similar, such a provision would not materially affect the distribution of county taxes, and therefore does not seem of practical importance; we therefore have not recommended it. It is further to be considered that the State will have important functions to perform under this act, which considerably increases the duties of the Tax Commissioner and State Forester, and for this reason it is desirable and proper that the State should participate in the revenue from forest product tax. Concerning forest commutation tax, we are of the opinion that the entire revenue should go to the cities and towns. This tax will disappear in the course of time, and during its continuance the cities and towns should receive whatever revenue it affords.

Sections 20 to 24, inclusive, place upon the State Forester certain important duties connected with the management of forest lands, and require the owners of such lands to utilize them in the manner contemplated by the proposed act. They impose upon landowners no duties that are not consistent with the real interest of such owners, the performance of which will tend to increase the productivity of forest lands and decrease the fire risk. They require the State Forester to exercise only such supervision as is necessary to insure proper management of forest lands, and are so drafted as not to interfere with any good method of forest planting or management.

Sections 26 and 27 provide suitable penalties for violations of the provisions of the proposed act.

Sections 28 and 29 the commission believes to be very important. Forestry is an industry which requires the investment of capital under conditions that call for farsighted management and the investment of money upon the prospect of a

deferred return. For such a business the corporate form of organization is obviously the most suitable, and it is therefore desirable to give corporations the same opportunities that individuals will enjoy under this act. The corporation laws of the Commonwealth, as amended in 1912, now authorize the formation of corporations for any lawful purpose, including the owning and management of real estate. They provide, however, that the duration of real estate corporations shall not exceed fifty years, a restriction which, while doubtless wise in the case of other kinds of business, is both unnecessary and undesirable in the case of forestry. It is desirable that lands unsuitable for other purposes should be permanently devoted to timber culture, and the effect of restricting the duration of corporations to fifty years would be to discourage the adoption of the best forestry methods. We therefore recommend that corporations formed for the purpose of owning classified forest lands may be organized without limitation of the term of their duration. It is further desirable to amend the law relating to the taxation of corporate franchises in such a manner as to provide for corporations owning forest lands under the proposed act. At present business corporations are taxed by the State upon the value of their capital stock, from which is deducted the assessed value of real estate and machinery subject to local taxation. Since the assessed value of classified forest land, for the purpose of local taxation under this act, is limited to the bare value of the land, it would follow, unless the corporation tax law is amended, that the value of the growing timber which this act exempts from local taxation would be included in the assessment of the corporate franchise. The result would be that the tax levied by the State upon the capital stock would be levied upon the growing timber, which it is the very purpose of the proposed act to exempt from annual taxation and in lieu of which forest product tax is imposed. We therefore recommend that, in the taxation of corporate franchises, corporations engaged in the business of forestry under this act shall be exempt from taxation upon such proportion of their capital stock as is actually invested in that business. The effect of this will be that corporations will be taxable locally upon any land they own and upon buildings situated thereon,

and that they will further pay a local tax, which is in the nature of an income tax, upon the entire product of their business. The State will then exempt from taxation so much of the capital stock as is invested in forestry operations. If such corporations acquire other assets, these will be subject to taxation in the manner provided for other corporations.

The commission believes that the proposed act will make it possible for capital to engage in forestry in Massachusetts upon reasonably favorable terms, and that in this way much may be done to improve forest conditions in the Commonwealth. It is possible that some time will be required for landowners to become familiar with the provisions of this act and to form an opinion concerning its operation; but we believe that the act accords with the best opinions upon the subject of forest taxation, and that it is supported by the experience of other countries that were obliged to deal with the forestry problem a long time ago. Under its provisions the Commonwealth may expect that forestry will become as profitable as other lines of business, and that private capital will undertake the development of the forest resources of Massachusetts.

V.

Under the terms of the resolution creating the commission, we were instructed to investigate the present policy of the Commonwealth with regard to the acquisition and management of wild or forest lands, and to report what further legislation seems necessary.

It can hardly be claimed that the Commonwealth has ever adopted a settled policy with reference to the acquisition of lands for forestry purposes. Certain large reservations have been acquired in the name of the Commonwealth, but these have in each instance been placed under the control of the counties or of boards of trustees created for that purpose. Beyond this, the activity of the State has been limited to the acquisition of land under the so-called reforestation act, chapter 478 of the Acts of 1908. Under the terms of this act the State Forester has secured, principally by purchase, 109 tracts, com-

prising approximately 4,200 acres, for development by planting; and the greater part of this, except such portions as have recently been acquired, has been planted and maintained under the appropriation provided in the act. These lands consist of small tracts, limited by the terms of the act to 80 acres in each instance, and located in various parts of the State. In the judgment of the commission this measure, intended primarily as an educational one, has accomplished beneficial results; but we are of opinion that the State should now turn its attention to a larger and more far-reaching method of developing forest resources. Such small tracts cannot be developed as economically as larger ones, and will not show as good a return upon the investment. Failing in this, they can never be standards of the highest type for the guidance of the individual owner, which, after all, is the ultimate goal to be sought.

It is the opinion of the commission that even with the additional incentive offered by a better system of taxation, there will yet remain several hundred thousand acres of wild or waste lands within the State, in large part covered by brush or scrub growth of no commercial value, which private capital will be slow to develop. Such lands not only prevent the development of the potential wealth of the State, but they are in addition a serious fire menace in each community. The investigation conducted by the commission, a detailed summary of which appears as Appendix A of this report, has shown that at the present time nearly a million acres of such land are lying idle in our various towns. Private owners, keenly aware of the burdens of taxation and the risks of fire, and having but little knowledge of the possibilities in the planting of trees, will be slow to engage in the clearing and planting of these less desirable tracts. The calculation of the returns to be reasonably expected from such plantations is one that, in the absence of concrete examples, will not be undertaken except in rare instances; certainly not at present, when the natural growth of our wood lots suffices in large part to meet the demand for firewood.

It is important that the Commonwealth should take the in-

initiative in the solution of this problem by the establishment, not only of a fair and encouraging system of taxation, but also by the establishment of a number of State forests of substantial area, situated in various parts of the State. A well-regulated State forest, of increasing productivity from year to year, located upon lands previously regarded as hopeless wastes, will exert educational influence of the highest value. Individuals will be stimulated to follow the action of the State, the actual results of such forests being far more persuasive an argument than the calculation of theoretical possibilities.

The commission therefore recommends the adoption of an act, drafted and appended to this report as Appendix D, to provide for the purchase and maintenance of such State forests. As the burden of this policy should be distributed over several years, and for best results purchases should be made slowly and after careful investigation of the different areas of the State, the bill provides for the gradual purchase of lands during a period of five years by a commission entitled the Commission on State Forests. The commission would be appointed by the Governor, serve without compensation, and work in close cooperation with the State Forester, who would examine and report upon the advisability of acquisition in each instance. To insure the purchase of lands not at present devoted to the growing of timber, a maximum average value of \$5 per acre is placed upon these purchases; and we recommend an annual appropriation of \$50,000 for five years, of which \$10,000 may be expended for planting and maintenance.

Upon acquisition the lands are to be placed under the management of the State Forester, who already has a large and well-organized department. As a further provision for the expense of planting these lands after purchase, an operation that the experience of the State Forester has shown will cost approximately \$10 an acre, the bill authorizes the use of the appropriation of \$10,000, now used by the State Forester in the purchase of lands under the reforestation act, for the development of lands purchased under this act. We also recommend that the State Forester be authorized to use the services of prisoners on these lands in the manner provided by chapter 633 of the Acts of 1913.

The bill provides for reimbursing cities and towns within whose boundaries these forests are situated for the taxes upon lands acquired by the State.

Thus, for the expenditure of a moderate amount annually for the least valuable land in the Commonwealth, State forests can be established that will not only, after a reasonable period, be self-supporting, but will be of the highest educational value.

This policy of establishing State forests is one that has been adopted by many States, including New York, Connecticut, Pennsylvania, Vermont, New Hampshire, Minnesota and Wisconsin. Experience has everywhere shown that the highest development of the forest resources of a State can best be obtained under a combination of State and individual ownership. The commission therefore recommends that the Commonwealth of Massachusetts take immediate steps to establish this as the policy of the State, by the enactment of the law proposed herewith.

Respectfully submitted,

WILLIAM D. T. TREFRY.
CHARLES J. BULLOCK.
HAROLD PARKER.
CHARLES H. PRESTON.
FRANK W. RANE.

APPENDICES.

APPENDIX A.

NOTE.

The information contained in the following tables was furnished by the assessors of the various cities and towns in reply to inquiries by the commission as to the amount and value of woodlands and brush lands. Replies were obtained from 300 cities and towns and partial replies from a few others which were too fragmentary to be included in the following tables. The omission of a city or town from the table indicates, then, that the commission was unable to obtain the information from the local assessors. It was, however, exceedingly difficult for the assessors to furnish these figures, since they were not contained in the assessors' records, and consequently in most instances are but estimates. While doubtless inaccurate in individual instances, the commission believes that these errors are so distributed and balanced that the totals are substantially accurate and of real value.

The figures contained in the columns headed "total valuation of assessed estate," "total valuation of land," "total area of land" and "area of all other land" are taken from the table of polls and aggregates published by the Tax Commissioner for the year 1913. The computations of average valuations per acre and ratio of value of improved land to the total value of assessed estate have been computed by the commission.

SUMMARY.

COUNTIES.	Number of Towns and Cities having reported.	Total Valuation of Assessed Estate of Towns having reported.
1 Barnstable,	13 out of 15	\$39,834,810
2 Berkshire,	25 out of 32	59,105,571
3 Bristol,	20 out of 20	294,932,217
4 Dukes,	6 out of 7	6,146,757
5 Essex,	31 out of 34	443,002,357
6 Franklin,	18 out of 26	17,822,838
7 Hampden,	19 out of 23	280,110,918
8 Hampshire,	15 out of 23	38,914,076
9 Middlesex,	49 out of 54	713,765,502
10 Nantucket,	1 out of 1	4,342,040
11 Norfolk,	27 out of 28	312,312,803
12 Plymouth,	22 out of 27	136,392,313
13 Suffolk,	4 out of 4	1,585,669,991
14 Worcester,	50 out of 59	175,884,522
Totals,	300 out of 353	\$4,108,236,715

BARNSTABLE COUNTY.

TOWN OR CITY.	Total Valuation of Assessed Estate April 1, 1913.	VALUATION OF LAND.			
		Wood-land.	Brush and Sprout Land.	All Other Land.	Total.
1 Barnstable,	\$5,425,650	\$25,000	\$10,000	\$2,486,980	\$2,521,980
2 Bourne,	7,644,300	30,000	10,000	2,021,999	2,061,999
3 Brewster,	813,065	54,900	1,800	130,050	156,450
4 Chatham,	1,345,040	9,950	5,200	280,000	295,200
5 Dennis,	1,362,785	20,500	6,750	260,960	288,210
6 Eastham,	478,928	16,040	9,028	75,000	100,068
7 Falmouth,	10,854,488	250,000	25,000	1,500,925	1,775,925
8 Harwich,	1,569,170	81,950	20,305	397,155	499,480
9 Mashpee,	250,070	120,300	37,630	15,310	172,640
10 Orleans,	3,696,288	-	-	-	234,836
11 Provincetown,	2,360,419	0	5,280	487,056	492,336
12 Sandwich,	1,300,800	95,000	30,000	238,325	383,325
13 Truro,	408,045	-	-	-	204,905
14 Wellfleet,	882,105	4,500	1,750	207,285	213,535
15 Yarmouth,	2,549,989	25,000	7,000	475,755	507,755
Totals,	\$43,939,143	\$732,810	\$169,319	\$8,596,771	\$9,938,641

SUMMARY.

VALUATION OF LAND.		AREA IN ACRES.		AVERAGE VALUATION PER ACRE.		Ratio of Value of Unimproved Land to Total Valuation of Assessed Estate.
Woodland.	Brush and Sprout Land.	Wood-land.	Brush and Sprout Land.	Wood-land.	Brush and Sprout Land.	
\$732,810	\$169,319	57,238	41,701	\$12 80	\$4 06	.023
1,509,365	327,570	117,669	91,846	12 83	3 57	.031
2,434,130	942,459	99,913	69,204	24 36	13 62	.011
107,685	358,946	4,859	9,456	22 16	37 96	.076
1,719,985	625,411	48,727	34,575	37 61	18 09	.005
949,036	163,677	85,116	43,101	11 15	3 80	.062
1,011,805	520,253	57,456	73,238	17 61	7 10	.005
950,188	303,472	48,909	51,965	19 43	5 84	.032
3,301,826	1,460,308	91,771	78,257	35 98	18 66	.007
15,000	0	3,000	0	5 00	-	.003
1,865,047	632,528	45,900	49,069	40 63	12 87	.008
2,813,374	598,211	97,280	86,148	28 92	6 94	.025
360,000	340,000	500	500	720 00	680 00	.000
3,838,615	1,536,383	164,117	181,277	23 39	8 47	.031
\$21,608,866	\$7,978,537	919,455	810,337	\$23 50	\$9 85	.007

BARNSTABLE COUNTY.

AREA OF ASSESSED LAND.				AVERAGE VALUATION PER ACRE.	
Woodland.	Brush and Sprout Land.	All Other Land.	Total.	Woodland.	Brush and Sprout Land.
8,000	7,500	17,100	32,600	\$3 13	\$1 33
6,000	9,000	5,000	20,000	5 00	1 11
3,850	600	4,447	8,897	14 18	3 00
992	1,983	3,000	5,975	10 00	2 67
1,650	1,250	4,977	7,877	12 42	5 40
1,311	2,000	1,656	4,967	12 23	4 51
10,000	5,000	5,578	20,578	25 00	5 00
1,865	1,579	3,445	6,859	43 94	12 91
9,620	3,564	445	13,629	12 50	10 39
-	-	-	5,515	-	-
0	175	795	970	-	30 17
11,000	5,000	8,000	24,000	8 64	6 00
-	-	-	8,125	-	-
450	550	5,484	6,484	10 00	3 13
2,500	3,500	6,076	12,076	10 00	2 00
57,238	41,701	68,973	121,552	\$12 80	\$4 06

BERKSHIRE COUNTY.

TOWN OR CITY.	Total Valuation of Assessed Estate April 1, 1913.	VALUATION OF LAND.			
		Wood-land.	Brush and Sprout Land.	All Other Land.	Total.
1 Adams, . . .	\$6,527,153	\$6,000	\$4,000	\$1,105,725	\$1,115,725
2 Alford, . . .	189,688	19,117	10,347	77,478	106,942
3 Becket, . . .	642,960	54,876	13,219	120,000	188,095
4 Cheshire, . . .	836,960	-	-	-	289,655
5 Clarkburg, . . .	299,152	5,075	5,732	79,117	89,924
6 Dalton, . . .	4,808,484	59,290	11,385	460,465	531,140
7 Egremont, . . .	355,891	28,055	9,228	187,342	224,605
8 Florida, . . .	351,307	-	-	-	131,451
9 Great Barrington, . . .	6,872,809	85,875	36,425	1,738,895	1,961,195
10 Hancock, . . .	390,935	60,000	15,320	80,000	155,320
11 Hinsdale, . . .	649,537	25,000	1,660	170,000	196,660
12 Lanesborough, . . .	633,237	48,000	12,000	236,672	296,672
13 Lee, . . .	2,649,842	41,943	0	511,527	553,170
14 Lenox, . . .	8,963,045	375,000	7,500	2,514,160	2,896,660
15 Monterey, . . .	356,540	90,000	13,500	89,848	193,348
16 Mount Washington, . . .	133,688	18,000	3,880	40,000	61,880
17 New Ashford, . . .	65,600	-	-	-	35,465
18 New Marlborough, . . .	855,180	125,875	22,500	226,250	374,625
19 Nostr Adams, . . .	16,243,329	17,510	8,755	4,819,580	4,845,845
20 Otis, . . .	294,045	-	-	-	152,852
21 Peru, . . .	165,240	55,223	5,000	55,223	115,446
22 Prewettish, . . .	37,783,710	-	-	-	17,236,805
23 Richmond, . . .	669,819	34,943	7,500	174,245	216,688
24 Sandisfield, . . .	430,183	114,420	47,000	64,829	226,849
25 Savoy, . . .	180,850	14,395	2,455	68,845	85,695
26 Sheffield, . . .	1,081,375	44,730	35,824	367,236	447,840
27 Stockbridge, . . .	4,238,915	83,045	10,850	964,000	1,058,795
28 Tyringham, . . .	367,454	35,500	6,540	95,045	137,085
29 Washington, . . .	310,505	-	-	-	177,520
30 West Stockbridge, . . .	569,235	42,550	25,550	136,200	204,300
31 Williamstown, . . .	5,087,263	-	-	-	1,684,570
32 Windsor, . . .	301,000	24,313	10,800	103,887	139,000
Totals, . . .	\$103,834,961	\$1,509,365	\$327,570	\$14,486,569	\$36,034,822

BRISTOL COUNTY.

1 Acushnet, . . .	\$1,098,280	\$58,315	\$19,600	\$403,255	\$481,220
2 Attleborough, . . .	20,316,193	300,000	300,000	4,498,858	5,098,858
3 Berkley, . . .	820,513	43,305	11,935	158,330	213,570
4 Dartmouth, . . .	5,019,325	408,625	204,325	1,225,925	1,838,875
5 Dighton, . . .	1,372,203	55,278	11,629	240,373	310,280
6 Easton, . . .	6,982,063	80,000	40,000	481,201	601,201
7 Fairhaven, . . .	4,077,750	43,090	200	1,360,150	1,403,440
8 FALL RIVER, . . .	99,880,768	125,000	30,000	20,342,925	20,497,925
9 Freetown, . . .	1,019,320	180,920	390	199,390	380,700
10 Mansfield, . . .	4,421,645	60,000	21,000	818,835	899,835

BERKSHIRE COUNTY.

AREA OF ASSESSED LAND.				AVERAGE VALUATION PER ACRE.		
Woodland.	Brush and Sprout Land.	All Other Land.	Total.	Woodland.	Brush and Sprout Land.	
950	2,000	9,000	11,950	\$6 31	\$2 00	1
1,465	1,226	4,507	7,358	13 05	7 80	2
9,146	4,575	12,000	25,721	6 00	2 89	3
-	-	-	16,477	-	-	4
1,000	2,650	4,238	7,888	5 08	2 16	5
5,794	2,218	5,486	13,498	10 23	5 13	6
1,910	2,309	6,975	11,235	14 15	3 90	7
-	-	-	14,269	-	-	8
5,250	5,968	15,038	26,256	16 36	6 10	9
10,000	5,181	5,000	20,181	6 00	2 96	10
1,500	2,043	10,200	13,743	16 67	8 11	11
8,000	4,000	5,048	17,048	6 00	3 00	12
6,454	0	9,524	15,978	6 45	-	13
6,000	500	6,907	13,407	62 50	15 00	14
6,400	3,200	6,480	16,080	14 06	4 22	15
6,134	4,000	2,000	12,134	2 93	-	16
-	-	-	6,259	-	-	17
9,851	7,500	12,049	29,400	12 78	3 00	18
1,751	1,751	5,668	9,170	-	-	19
-	-	-	21,782	-	-	20
-	-	-	16,355	-	-	21
5,451	5,453	5,451	16,355	10 13	9 21	22
-	-	-	23,300	-	-	23
2,036	1,981	7,439	11,456	17 16	3 79	24
9,535	11,900	8,200	29,635	12 00	4 00	25
3,310	1,122	16,318	20,950	4 35	2 19	26
2,239	8,956	16,794	27,989	30 00	4 00	27
3,713	872	9,230	13,815	22 61	12 44	28
3,750	2,331	5,178	11,259	9 47	2 81	29
-	-	-	33,662	-	-	30
2,750	2,750	5,566	11,066	15 47	9 29	31
-	-	-	25,622	-	-	32
3,290	7,200	11,943	22,023	7 41	1 50	33
117,660	91,846	206,100	546,936	\$12 83	\$3 57	

BRISTOL COUNTY.

5,000	1,964	4,000	10,964	\$11 66	\$10 00	1
2,000	6,000	7,000	15,000	150 00	50 00	2
2,418	1,152	7,790	11,390	17 90	10 09	3
8,000	16,000	13,926	37,926	51 07	12 77	4
4,138	964	8,298	13,400	14 08	12 06	5
4,000	4,000	9,306	17,306	20 00	10 00	6
2,791	19	4,219	7,029	15 43	10 52	7
5,000	6,502	4,300	16,002	25 00	4 61	8
15,380	132	5,614	21,126	11 76	29 51	9
3,000	3,000	5,359	11,359	20 00	7 00	10

BRISTOL COUNTY — Concluded.

TOWN or CITY.	Total Valuation of Assessed Estate April 1, 1913.	VALUATION OF LAND.			
		Wood-land.	Brush and Sprout Land.	All Other Land.	Total.
11 New Bedford, . . .	\$104,536,328	\$50,000	\$50,000	\$22,843,675	\$22,943,675
12 North Attleborough, . . .	9,571,030	88,940	22,000	2,311,710	2,392,650
13 Norton, . . .	1,937,750	44,520	12,608	296,474	353,602
14 Raynham, . . .	912,739	76,495	10,800	215,330	303,625
15 Rehoboth, . . .	1,027,609	174,177	24,970	240,000	439,147
16 Seekonk, . . .	1,648,650	75,000	12,695	497,000	584,695
17 Somerset, . . .	1,649,190	7,500	5,000	621,805	634,305
18 Swansea, . . .	1,766,690	40,515	18,907	466,136	525,558
19 TAUNTON, . . .	25,142,501	506,000	25,000	4,981,550	5,506,550
20 Westport, . . .	2,281,700	49,450	121,350	600,000	770,800
Totals, . . .	\$294,932,217	\$2,434,130	\$942,450	\$62,803,022	\$66,179,611

DUKES COUNTY.

1 Chilmark, . . .	\$372,110	\$20,740	\$3,654	\$129,933	\$154,327
2 Edgartown, . . .	1,195,327	5,445	2,692	392,443	399,980
3 Gay Head, . . .	44,247	1,500	4,000	7,459	12,938
4 Gosnold, . . .	913,301	0	196,200	361,601	557,501
5 Oak Bluffs, . . .	1,914,025	40,000	150,000	253,650	443,650
6 Tisbury, . . .	1,807,747	40,000	3,000	441,297	484,297
7 West Tisbury, . . .	682,688	—	—	—	158,817
Totals, . . .	\$6,829,445	\$107,685	\$358,946	\$1,586,393	\$2,211,811

ESSEX COUNTY.

1 Amesbury, . . .	\$6,566,676	\$55,822	\$6,620	\$1,353,783	\$1,416,225
2 Andover, . . .	8,086,475	260,248	114,060	1,892,877	1,767,185
3 BEVERLY, . . .	40,554,585	152,775	49,525	9,502,075	9,704,375
4 Boxford, . . .	1,336,215	69,675	9,145	268,045	341,865
5 Danvers, . . .	7,541,368	20,000	3,000	2,045,550	2,068,550
6 Essex, . . .	1,254,656	—	—	—	369,950
7 Georgetown, . . .	1,273,420	88,720	11,910	235,415	336,045
8 GLOUCESTER, . . .	25,568,473	99,100	5,330	9,144,855	9,249,285
9 Groveland, . . .	1,230,818	16,300	5,815	200,658	222,776
10 Hamilton, . . .	5,201,945	104,585	4,230	873,035	981,870
11 HAVERHILL, . . .	39,891,136	150,000	15,000	12,576,125	12,681,125
12 Ipswich, . . .	5,490,041	140,000	3,750	1,147,268	1,291,018
13 LAWRENCE, . . .	75,710,903	0	33,000	24,625,125	24,658,125
14 Lynn, . . .	86,005,977	20,000	16,000	28,485,180	28,521,180
15 Lynnfield, . . .	1,268,002	21,000	48,173	361,658	430,836
16 Manchester, . . .	15,730,324	—	—	—	4,007,315
17 Marblehead, . . .	10,972,136	0	0	5,248,300	5,248,300
18 Merrimac, . . .	1,284,443	48,750	10,500	266,771	326,021
19 Methuen, . . .	8,401,695	7,500	60,000	2,335,730	2,606,220
20 Middleton, . . .	911,534	77,793	5,560	185,529	268,882

BRISTOL COUNTY — Concluded.

Woodland.	Brush and Sprout Land.	All Other Land.	Total.	AVERAGE VALUATION PER ACRE.	
				Woodland.	Brush and Sprout Land.
2,000	2,000	7,182	11,182	\$25 00	\$25*00
2,947	2,200	5,300	10,447	20 00	10 00
4,214	1,948	10,988	16,850	10 56	7 65
4,986	1,544	5,890	12,420	15 34	6 99
10,000	4,994	12,000	26,994	17 41	5 00
2,500	1,250	7,000	10,750	30 00	10 15
300	500	3,912	4,712	25 00	10 00
2,701	2,701	8,146	13,548	15 00	7 00
12,000	5,000	7,900	24,900	41 66	5 00
6,538	7,604	15,208	29,350	7 56	15 95
99,913	69,204	183,538	322,655	\$24 36	\$13 62

DUKES COUNTY.

1,220	609	8,517	10,346	\$17 00	\$6 00
1,089	1,395	8,938	11,422	5 00	1 49
300	800	1,491	2,591	5 00	3 00
0	4,052	4,435	8,487	—	45 42
250	2,000	1,173	3,423	160 00	75 00
2,000	600	1,418	4,018	20 00	5 00
—	—	—	12,646	—	—
4,859	9,456	25,972	52,936	\$22 16	\$37 96

ESSEX COUNTY.

1,125	479	5,814	7,418	\$49 61	\$13 82
4,873	3,843	9,588	18,304	53 40	29 67
845	1,145	6,431	8,421	180 80	43 26
3,801	1,264	9,104	14,169	18 33	7 23
500	250	6,567	7,317	40 00	12 00
—	—	—	7,853	—	—
—	1,191	4,252	7,661	40 00	7 00
2,171	600	7,057	9,828	45 65	8 88
695	991	3,544	5,230	23 45	5 87
1,099	180	6,987	8,776	65 00	23 61
2,000	1,500	14,590	18,099	75 00	10 00
3,500	500	14,250	18,250	40 00	7 50
0	321	2,801	3,122	—	102 80
200	800	3,293	4,293	100 00	20 00
700	2,834	2,531	6,065	30 00	17 00
—	—	—	4,434	—	—
0	0	2,424	2,424	—	—
650	700	3,301	4,651	75 00	15 00
3,500	4,000	5,449	12,949	2 14	15 00
4,697	500	3,387	8,644	16 56	9 93

ESSEX COUNTY—Concluded.

TOWN OR CITY.	Total Valuation of Assessed Estate April 1, 1913.	VALUATION OF LAND.			
		Woodland.	Brush and Sprout Land.	All Other Land.	Total.
21 Nahant, . . .	\$9,067,802	0	0	\$1,560,636	\$1,560,636
22 Newbury, . . .	1,510,218	\$44,000	\$15,000	440,510	499,510
23 NEWBURYPORT, . . .	12,817,938	70,000	17,500	2,471,050	2,558,550
24 North Andover, . . .	5,572,491	30,000	43,500	1,506,678	1,580,178
25 Peabody, . . .	15,636,200	50,000	34,000	2,901,000	2,985,000
26 Rockport, . . .	3,908,970	18,450	11,250	1,371,630	1,401,330
27 Rowley, . . .	2,297,674	42,647	2,610	217,986	263,243
28 SALISBURY, . . .	37,415,303	1,000	0	9,513,300	9,514,300
29 Salisbury, . . .	1,429,640	38,985	9,945	549,445	598,375
30 Saugus, . . .	6,675,809	0	61,460	2,437,449	2,498,909
31 Swampscott, . . .	13,202,915	50,000	27,500	4,751,757	4,829,257
32 Topsfield, . . .	3,568,570	—	—	—	688,737
33 Wenham, . . .	2,690,400	38,000	0	458,300	496,300
34 West Newbury, . . .	1,091,988	4,633	1,000	276,388	282,023
Totals, . . .	\$404,555,907	\$1,719,985	\$625,411	\$128,840,428	\$136,251,826

FRANKLIN COUNTY.

1 Ashfield, . . .	\$802,757	\$100,000	\$2,500	\$200,785	\$303,285
2 Bernardston, . . .	533,411	64,944	5,000	113,277	183,221
3 Buckland, . . .	1,420,626	52,500	3,000	244,170	299,670
4 Charlemont, . . .	361,400	30,313	5,130	151,337	206,732
5 Colrain, . . .	792,065	50,440	14,720	148,320	222,480
6 Conway, . . .	825,989	—	—	—	284,248
7 Deerfield, . . .	2,472,568	15,000	2,000	793,537	810,537
8 Erving, . . .	1,065,053	66,820	9,664	131,134	207,918
9 Gill, . . .	493,638	50,000	23,000	150,718	225,718
10 Greenfield, . . .	11,492,552	—	—	—	2,852,076
11 Hawley, . . .	202,657	5,770	2,715	86,625	95,110
12 Heath, . . .	228,995	41,212	600	64,968	108,798
13 Leverett, . . .	369,505	—	—	—	171,424
14 Leyden, . . .	205,980	—	—	—	97,072
15 Monroe, . . .	176,934	12,904	3,879	17,435	34,218
16 Montague, . . .	4,638,333	—	—	—	1,133,478
17 New Salem, . . .	392,370	79,540	19,784	107,638	206,980
18 Northfield, . . .	1,464,269	85,909	18,593	364,432	468,684
19 Orange, . . .	4,055,235	63,873	14,308	785,682	863,885
20 Rowe, . . .	258,305	42,765	6,000	36,910	85,675
21 Shelburne, . . .	1,730,829	76,000	3,220	640,316	719,536
22 Shutesbury, . . .	321,611	—	—	—	237,990
23 Sunderland, . . .	610,671	18,342	8,264	247,860	274,466
24 Warwick, . . .	456,232	—	—	—	281,290
25 Wendell, . . .	524,835	—	—	—	255,270
26 Whately, . . .	539,455	64,000	21,000	136,149	221,149
Totals, . . .	\$36,657,925	\$949,036	\$163,677	\$4,421,359	\$10,847,510

ESSEX COUNTY—Concluded.

AREA OF ASSESSED LAND.				AVERAGE VALUATION PER ACRE.		
Woodland.	Brush and Sprout Land.	All Other Land.	Total.	Woodland.	Brush and Sprout Land.	
0	0	468	468	—	—	21
4,400	3,000	6,290	13,690	\$10 00	\$5 00	22
700	350	3,526	4,576	100 00	50 00	23
1,000	4,350	9,642	14,992	30 00	10 00	24
1,200	1,700	6,188	9,088	41 67	20 00	25
555	152	2,491	3,198	33 24	74 01	26
2,362	1,150	7,250	10,762	18 06	2 26	27
27	0	3,890	3,827	37 04	—	28
1,356	1,128	6,513	8,997	28 75	8 81	29
0	1,228	5,068	6,296	—	50 05	30
140	275	1,260	1,675	357 14	100 00	31
—	—	—	7,020	—	—	32
700	0	3,751	4,451	54 28	—	33
203	84	7,780	8,067	22 83	11 90	34
45,727	34,575	175,276	274,885	\$37 61	\$18 09	

FRANKLIN COUNTY.

11,068	1,200	12,100	24,368	\$9 03	\$2 00	1
5,472	2,500	6,133	14,105	11 86	2 00	2
5,500	1,500	6,741	11,741	15 00	2 00	3
3,777	387	11,332	15,496	13 32	13 25	4
8,584	4,292	12,876	25,752	6 92	3 42	5
—	—	—	22,835	—	—	6
1,000	500	18,291	19,791	15 00	4 00	7
3,341	2,847	2,698	8,886	20 00	3 50	8
4,000	1,315	3,000	8,315	12 50	17 49	9
—	—	—	11,887	—	—	10
1,462	1,338	15,464	18,204	41 16	20 29	11
4,808	200	10,015	15,023	8 57	3 00	12
—	—	—	12,698	—	—	13
—	—	—	10,561	—	—	14
3,226	1,293	2,217	6,736	4 00	3 00	15
—	—	—	16,400	—	—	16
—	—	—	16,030	10 00	4 00	17
7,954	4,946	5,130	19,530	13 50	4 60	18
6,242	4,041	9,147	20,440	12 50	2 00	19
5,110	7,154	8,176	20,440	6 61	2 00	20
6,466	3,000	5,500	14,966	—	—	21
3,800	322	9,868	13,990	20 00	10 00	22
—	—	—	16,427	—	—	23
2,066	2,066	4,131	8,263	8 88	4 00	23
—	—	—	22,797	—	—	24
—	—	—	19,437	—	—	25
3,300	4,200	4,912	12,312	20 00	5 00	26
85,116	43,101	147,731	408,990	\$11 15	\$3 80	

HAMPDEN COUNTY.

TOWN OR CITY.	Total Valuation of Assessed Estate April 1, 1913.	VALUATION OF LAND.			
		Wood-land.	Bush and Sprout Land.	All Other Land.	Total.
1 Agawam, . . .	\$2,593,631	\$25,000	\$73,260	\$777,835	\$876,095
2 Blandford, . . .	798,194	139,530	5,000	240,000	384,530
3 Brimfield, . . .	613,264	43,190	15,795	259,990	318,945
4 Chester, . . .	835,562	37,290	41,290	134,745	213,326
5 Caticopus, . . .	17,025,510	8,110	69,080	3,251,210	3,328,400
6 East Longmeadow, . . .	998,690	25,700	11,250	427,375	464,325
7 Granville, . . .	525,005	60,000	75,205	90,000	225,205
8 Hampden, . . .	447,535	77,622	22,386	177,630	277,630
9 Holland, . . .	112,132	34,652	24,750	14,830	74,232
10 Holyoke, . . .	60,354,983	54,000	15,000	20,876,520	20,945,520
11 Longmeadow, . . .	2,516,635	10,000	20,000	1,144,410	1,174,410
12 Ludlow, . . .	4,298,754	129,000	20,150	397,659	337,809
13 Monson, . . .	1,869,090	—	—	403,415	—
14 Montgomery, . . .	138,697	—	—	—	82,486
15 Palmer, . . .	5,289,004	90,000	20,000	835,996	945,996
16 Russell, . . .	1,294,051	100,000	34,760	60,000	194,760
17 Southwick, . . .	801,970	—	—	260,359	—
18 Springfield, . . .	169,640,484	34,800	20,000	81,027,275	81,081,575
19 Tolland, . . .	266,697	69,158	23,052	92,209	184,419
20 Wales, . . .	271,902	30,953	2,800	52,665	86,418
21 West Springfield, . . .	9,181,514	—	—	—	2,338,620
22 Westfield, . . .	10,939,734	0	10,000	2,977,875	2,987,875
23 Wilbraham, . . .	1,224,551	52,000	16,475	270,290	338,765
Totals, . . .	\$292,182,189	\$1,011,905	\$520,253	\$113,008,507	\$117,625,436

HAMPSHIRE COUNTY.

1 Amherst, . . .	\$5,261,132	\$28,415	\$2,620	\$1,139,000	\$1,171,095
2 Belchertown, . . .	—	940,045	—	—	365,900
3 Chesterfield, . . .	346,831	45,000	15,000	86,192	146,192
4 Cummington, . . .	340,275	23,400	7,200	92,115	122,715
5 Easthampton, . . .	7,348,009	—	—	—	1,215,894
6 Enfield, . . .	753,690	—	—	—	183,145
7 Geese, . . .	218,157	—	—	—	115,175
8 Granby, . . .	610,375	50,000	24,000	224,500	298,500
9 Greenwich, . . .	254,881	—	—	—	112,990
10 Hadley, . . .	1,903,428	60,000	14,000	693,006	767,006
11 Hatfield, . . .	1,787,089	37,020	7,000	560,014	604,034
12 Huntington, . . .	699,245	—	—	—	178,300
13 Middlefield, . . .	236,844	—	—	—	83,245
14 Northampton, . . .	17,450,911	30,000	30,000	4,406,780	4,466,780
15 Pelham, . . .	402,845	140,000	10,835	75,000	225,835
16 Plainfield, . . .	199,147	25,000	10,185	50,000	85,185
17 Prescott, . . .	304,610	—	—	—	128,590
18 South Hadley, . . .	3,286,207	28,500	4,500	945,305	978,505
19 Southampton, . . .	529,630	60,000	64,000	100,980	224,980
20 Ware, . . .	5,039,160	356,323	59,932	611,183	1,018,638

HAMPDEN COUNTY.

AREA OF ASSESSED LAND.				AVERAGE VALUATION PER ACRE.		
Woodland.	Bush and Sprout Land.	All Other Land.	Total.	Woodland.	Bush and Sprout Land.	
900	3,663	10,000	14,183	\$50 00	\$20 00	1
10,459	5,000	18,000	31,459	13 34	1 00	2
2,770	3,075	14,875	20,720	15 59	5 13	3
2,486	8,238	10,744	21,468	15 00	5 00	4
294	3,851	8,555	12,800	27 57	17 48	5
950	880	6,101	7,931	27 05	12 78	6
6,000	13,704	6,000	25,704	10 00	5 48	7
4,566	3,048	4,566	12,180	17 00	7 34	8
1,873	4,116	1,199	7,193	18 45	6 01	9
1,800	1,400	6,232	9,432	30 00	10 71	10
500	2,000	3,580	6,080	20 00	10 00	11
6,000	4,030	6,000	16,030	20 00	5 00	12
—	—	—	25,100	—	—	13
—	—	—	8,623	—	—	14
4,500	4,000	9,806	18,306	20 00	5 00	15
2,510	3,450	2,831	8,891	39 84	9 79	16
—	—	—	17,758	—	—	17
193	200	15,792	16,185	179 27	10 00	18
7,532	3,768	7,532	18,832	9 18	6 11	19
3,218	2,800	5,511	9,529	9 61	1 00	20
—	—	—	8,782	—	—	21
0	2,500	22,800	25,300	—	4 00	22
1,300	3,295	8,590	13,185	40 00	5 00	23
57,456	73,238	164,723	395,680	\$17 61	\$7 10	

HAMPSHIRE COUNTY.

1,550	330	13,860	15,740	\$18 98	\$7 94	1
—	—	—	31,970	—	—	2
5,500	5,000	8,032	18,532	8 18	3 00	3
2,600	1,200	9,800	13,600	9 00	6 00	4
—	—	—	9,123	—	—	5
—	—	—	10,355	—	—	6
—	—	—	10,703	—	—	7
2,000	4,000	10,595	16,595	25 00	6 00	8
—	—	—	9,828	—	—	9
3,000	1,302	9,000	13,302	20 00	10 76	10
1,234	1,400	6,624	9,258	30 00	5 00	11
—	—	—	14,700	—	—	12
—	—	—	14,165	—	—	13
300	6,000	11,797	18,097	100 00	5 00	14
10,000	3,275	2,000	15,275	14 00	3 31	15
5,000	3,050	5,000	13,050	5 00	3 34	16
—	—	—	10,957	—	—	17
1,800	900	7,487	10,257	15 00	5 00	18
—	—	3,000	7,249	20 00	9 14	19
6,835	1,708	5,542	17,085	52 16	29 82	20

HAMPSHIRE COUNTY — Concluded.

TOWN OR CITY.	Total Valuation of Assessed Estate April 1, 1915.	VALUATION OF LAND.			
		Woodland.	Brush and Sprout Land.	All Other Land.	Total.
21 Westhampton, . . .	\$278,215	\$25,000	\$40,000	\$65,680	\$130,680
22 Williamsburg, . . .	1,088,708	18,000	3,200	239,944	290,844
23 Worthington, . . .	390,123	22,330	20,000	89,670	132,000
Totals, . . .	\$49,569,557	\$950,188	\$303,472	\$9,379,329	\$13,014,258

MIDDLESEX COUNTY.

1 Acton, . . .	\$2,439,745	\$57,315	\$31,490	\$437,580	\$526,385
2 Arlington, . . .	14,799,210	700	3,750	4,923,272	4,927,722
3 Ashby, . . .	620,438	100,000	38,000	92,814	230,814
4 Ashland, . . .	1,503,305	40,000	26,130	302,730	368,910
5 Ayer, . . .	2,319,622	22,960	18,155	598,387	639,502
6 Bedford, . . .	1,790,799	—	—	—	524,415
7 Belmont, . . .	8,243,729	—	—	—	2,441,795
8 Billerica, . . .	3,464,503	—	—	—	843,982
9 Boxborough, . . .	293,483	—	—	—	167,915
10 Burlington, . . .	791,019	121,830	21,350	179,226	322,426
11 CAMBRIDGE, . . .	121,132,290	0	0	43,507,500	43,507,500
12 Carlisle, . . .	487,920	85,070	16,208	99,876	201,154
13 Chelmsford, . . .	4,464,870	82,800	49,920	862,845	995,965
14 Concord, . . .	8,801,155	119,036	56,715	1,654,527	1,830,278
15 Dracut, . . .	2,520,021	50,000	60,000	835,285	945,285
16 Dunstable, . . .	429,127	—	—	—	161,570
17 EVERETT, . . .	30,724,100	0	0	8,374,200	8,374,200
18 Frammingham, . . .	15,470,490	99,900	4,500	3,333,330	3,497,430
19 Groton, . . .	4,838,220	129,570	14,495	653,000	797,065
20 Holliston, . . .	2,017,755	75,300	28,040	429,297	532,637
21 Hopkinton, . . .	1,817,701	144,375	45,000	387,545	576,920
22 Hudson, . . .	4,148,215	45,000	15,000	761,400	821,400
23 Lexington, . . .	5,562,600	44,825	12,950	2,576,930	2,634,705
24 Lincoln, . . .	4,377,610	82,530	25,500	454,070	562,070
25 Littleton, . . .	1,194,052	53,450	17,560	299,145	370,155
26 LOWELL, . . .	87,041,993	2,000	0	27,217,805	27,219,805
27 MILBURN, . . .	41,661,530	0	130,000	12,283,100	12,413,100
28 MANDARIN, . . .	10,724,370	10,000	12,000	3,339,850	3,361,850
29 Maynard, . . .	4,094,545	41,599	136,679	415,979	594,257
30 MERRIFORD, . . .	28,297,150	120,550	0	9,659,700	9,780,250
31 MELROSE, . . .	18,003,525	0	15,000	5,776,300	5,791,300
32 Natick, . . .	8,840,700	109,200	52,000	1,777,100	1,938,900
33 NEWTON, . . .	82,474,040	5,000	2,500	23,043,775	23,051,275
34 North Reading, . . .	919,253	85,000	51,500	155,075	291,575
35 Pepperell, . . .	2,316,866	156,856	8,850	340,681	505,387
36 Reading, . . .	6,971,783	400,000	33,340	2,117,065	2,190,405
37 Sherborn, . . .	2,231,755	96,780	11,195	382,710	490,685
38 Shirley, . . .	1,263,211	61,780	21,645	223,221	306,646
39 SOMERVILLE, . . .	71,806,464	0	0	24,434,300	24,434,300
40 Stoneham, . . .	5,352,080	19,985	70,525	2,001,289	2,091,799

HAMPSHIRE COUNTY — Concluded.

AREA OF ASSESSED LAND.				AVERAGE VALUATION PER ACRE.	
Woodland.	Brush and Sprout Land.	All Other Land.	Total.	Woodland.	Brush and Sprout Land.
1,000	8,000	6,697	15,697	\$25 00	\$5 00
1,800	900	12,891	15,491	10 00	4 00
3,190	5,000	9,203	20,393	7 00	2 50
48,909	51,965	128,777	341,452	\$19 43	\$5 84

MIDDLESEX COUNTY.

1,645	2,621	7,993	11,959	\$34 84	\$12 01
10	75	2,547	2,632	70 00	50 00
5,000	6,000	3,490	14,490	20 00	6 33
2,000	2,618	2,430	7,038	20 00	10 00
695	1,362	3,117	5,174	33 04	13 33
—	—	—	8,044	—	—
—	—	—	2,256	—	—
—	—	—	15,383	—	—
—	—	—	6,585	—	—
2,437	2,135	2,943	7,215	50 00	10 00
0	0	4,181	4,181	—	—
3,756	2,022	3,920	9,698	22 65	8 02
2,760	4,160	6,920	13,840	30 00	12 00
3,175	3,781	8,079	15,033	37 49	15 00
1,000	3,000	8,340	12,340	50 00	20 00
0	0	—	10,450	—	—
0	0	1,674	1,674	—	—
3,330	450	10,730	14,520	30 00	10 00
4,978	1,261	19,389	20,128	26 03	11 49
1,530	2,804	7,043	11,367	49 54	10 00
4,576	3,000	8,900	15,576	31 55	15 00
600	1,500	4,711	6,811	75 00	10 00
920	374	7,748	9,242	48 72	22 55
3,300	1,700	3,740	8,740	25 00	15 00
2,178	1,756	10,512	14,446	24 54	10 00
20	0	6,503	6,523	100 00	—
300	0	2,423	2,423	—	—
200	800	11,755	12,755	50 00	433 33
271	890	2,708	3,869	133 50	153 56
394	0	4,726	5,120	320 43	—
0	300	2,300	2,600	—	50 00
1,365	1,315	5,496	8,176	80 00	40 00
50	25	8,739	8,814	100 00	100 00
1,500	3,335	2,803	7,638	56 66	15 44
4,584	1,475	7,976	14,035	34 00	6 00
400	1,334	4,000	5,734	100 00	10 00
2,590	694	6,702	9,986	37 36	16 13
2,860	20	3,818	9,300	21 00	8 22
0	0	1,900	1,900	—	—
132	303	2,040	2,475	151 40	232 75

MIDDLESEX COUNTY — Concluded.

TOWN OR CITY.	Total Valuation of Assessed Estate April 1, 1913.	VALUATION OF LAND.			
		Wood-land.	Brush and Sprout Land.	All Other Land.	Total.
41 Stow,	\$1,121,348	\$87,000	\$12,000	\$291,652	\$390,652
42 Sudbury,	1,287,263	21,800	5,000	427,193	433,995
43 Tewksbury,	1,614,375	69,800	119,569	502,375	691,735
44 Townsend,	1,367,269	250,675	8,671	213,884	473,230
45 Tyngsborough,	674,904	111,000	15,000	133,984	259,984
46 Wakefield,	11,506,004	30,000	20,000	3,391,225	3,441,225
47 WALTHAM,	30,217,200	247,800	0	7,615,800	7,863,600
48 Watertown,	17,381,763	0	0	5,721,400	5,721,400
49 Wayland,	3,036,500	117,330	3,150	672,445	792,925
50 Westford,	2,205,326	30,000	30,000	545,423	625,423
51 Weston,	8,120,685	87,500	10,000	1,576,625	1,674,125
52 Wilmington,	1,817,219	90,000	54,000	349,860	493,860
53 Winchester,	16,426,829	0	135,000	5,000,325	5,135,325
54 Woburn,	12,070,310	31,620	17,280	3,491,692	3,519,972
Totals,	\$727,987,104	\$3,301,826	\$1,460,308	\$213,874,694	\$222,776,505

NANTUCKET COUNTY.

1 Nantucket,	\$4,342,040	\$15,000	0	\$1,355,730	\$1,370,730
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NORFOLK COUNTY.

1 Avon,	\$1,079,697	\$10,600	\$4,240	\$284,375	\$299,415
2 Bellingham,	955,643	26,100	35,270	220,020	283,390
3 Braintree,	8,739,496	25,000	5,000	2,437,238	2,467,238
4 Brookline,	117,722,700	0	0	34,363,400	34,363,400
5 Canton,	6,338,080	90,000	45,000	1,019,870	1,154,870
6 Cohasset,	11,042,714	62,552	0	1,727,083	1,789,635
7 Dedham,	14,964,810	—	—	4,523,675	4,523,675
8 Dover,	7,698,844	59,830	80,770	185,473	326,073
9 Foxborough,	2,647,638	166,350	7,500	498,645	672,495
10 Franklin,	4,702,435	146,100	80,184	797,416	1,023,700
11 Holbrook,	1,654,918	8,616	3,500	370,224	382,430
12 Medfield,	1,817,031	63,834	31,910	287,285	383,029
13 Medway,	1,721,820	20,000	15,000	352,155	387,155
14 Millis,	1,268,069	71,520	71,560	128,417	271,577
15 Milton,	29,927,244	40,000	10,000	6,371,810	6,421,810
16 Needham,	7,776,140	100,000	50,000	2,452,302	2,602,302
17 Norfolk,	1,197,570	35,000	16,200	169,992	221,192
18 Norwood,	15,640,380	191,250	15,000	3,643,815	3,850,065
19 Plainville,	1,036,094	16,833	20,000	183,324	220,157
20 Quincy,	36,610,560	0	0	13,205,025	13,205,025
21 Randolph,	2,823,750	52,000	9,350	675,000	736,350
22 Sharon,	3,718,522	67,050	37,470	904,255	998,775
23 Stoughton,	4,026,993	400,000	20,000	753,943	1,183,943
24 Walpole,	6,905,477	30,000	30,960	1,070,917	1,131,877
25 Wellesley,	18,103,632	9,000	5,000	4,373,932	4,387,932

MIDDLESEX COUNTY — Concluded.

AREA OF ASSESSED LAND.				AVERAGE VALUATION PER ACRE.	
Woodland.	Brush and Sprout Land.	All Other Land.	Total.	Woodland.	Brush and Sprout Land.
3,500	1,500	6,000	11,000	\$24 85	\$8 00
300	1,000	13,332	14,632	71 00	5 00
1,196	5,978	4,783	11,957	58 36	5 00
11455	1,637	7,058	20,150	21 88	5 29
3,700	3,000	3,240	9,940	30 00	5 00
300	200	3,487	3,987	100 00	100 40
1,675	0	4,693	6,368	147 93	—
0	0	1,882	1,882	—	47
2,132	89	7,584	9,805	55 03	35 39
5,000	6,000	7,000	18,000	10 00	5 00
1,750	400	8,099	10,249	50 00	25 00
2,000	3,000	5,137	10,137	45 00	18 00
0	800	2,098	2,898	—	168 75
527	432	6,542	7,501	60 00	40 00
91,771	78,237	272,007	484,733	\$35 98	\$18 66

NANTUCKET COUNTY.

3,000	0	20,704	23,704	\$5 00	—
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NORFOLK COUNTY.

424	424	1,697	2,545	\$25 00	\$10 00
562	3,527	7,054	11,143	50 00	10 00
1,000	1,000	5,925	7,925	25 00	5 00
0	0	3,446	3,446	—	4
3,000	4,500	3,520	11,020	30 00	10 00
1,627	0	4,487	6,114	38 45	—
0	0	—	5,520	—	7
1,496	4,487	2,992	8,975	40 00	18 00
7,890	1,500	2,994	12,424	20 97	5 00
0	0	4,179	4,179	25 00	12 00
718	718	2,871	4,307	12 00	5 00
1,789	895	5,268	7,952	35 65	12
800	1,500	7,682	9,982	25 00	10 00
1,783	3,567	1,784	7,134	40 00	20 14
400	100	5,723	6,223	100 00	100 15
1,000	1,000	5,434	7,434	100 00	50 16
2,200	1,500	4,556	8,256	15 80	10 17
500	300	5,322	6,122	38 25	50 00
903	2,200	3,140	6,243	18 64	9 09
0	0	6,667	6,667	—	20
1,800	972	2,820	5,592	28 88	9 61
1,630	3,747	8,795	14,172	35 00	10 00
4,000	2,000	3,225	9,225	100 00	22
1,000	3,000	8,000	12,000	30 00	10 00
300	500	4,777	5,577	30 00	10 20

NORFOLK COUNTY — Concluded.

TOWN OR CITY.	Total Valuation of Assessed Estate April 1, 1913.	VALUATION OF LAND.			Total.
		Wood- land.	Brush and Sprout Land.	All Other Land.	
26 Westwood, . . .	\$4,100,080	\$109,200	\$4,020	\$612,250	\$725,470
27 Weymouth, . . .	11,468,075	22,500	1,000	3,049,945	3,073,445
28 Wrentham, . . .	1,469,201	49,912	33,724	290,767	374,403
Totals, . . .	\$327,277,613	\$1,865,047	\$632,528	\$80,437,278	\$87,458,528

PLYMOUTH COUNTY.

1 Abington, . . .	\$3,508,793	-	-	-	\$790,940
2 Bridgewater, . . .	3,857,889	\$75,441	\$5,000	\$844,804	925,245
3 Brockton, . . .	50,522,437	150,750	11,850	15,373,000	15,535,600
4 Carver, . . .	1,975,695	251,000	10,000	1,286,270	1,547,270
5 Duxbury, . . .	4,410,391	150,961	8,400	683,724	842,985
6 East Bridgewater, . . .	2,364,158	100,000	9,580	388,520	498,100
7 Halifax, . . .	655,416	-	-	-	385,190
8 Haverhill, . . .	1,060,502	107,500	33,440	288,000	428,940
9 Hanson, . . .	1,451,530	180,000	3,885	195,000	378,885
10 Hingham, . . .	8,203,585	93,450	14,385	1,609,270	1,717,105
11 Hull, . . .	8,446,212	1,000	0	3,496,983	3,497,983
12 Kingston, . . .	1,679,890	75,000	20,000	327,275	422,275
13 Lakeville, . . .	1,161,885	221,700	35,470	134,465	391,635
14 Marion, . . .	5,137,190	151,765	9,700	730,115	911,640
15 Marshfield, . . .	2,823,797	-	-	-	722,480
16 Mattapoisett, . . .	1,850,987	120,000	16,800	531,280	688,060
17 Middleborough, . . .	4,984,707	334,092	167,045	1,002,272	1,503,410
18 Norwell, . . .	1,157,345	100,000	14,700	185,120	299,820
19 Pembroke, . . .	1,087,030	286,180	40,000	120,000	446,180
20 Plymouth, . . .	13,036,325	16,000	12,500	3,062,605	3,091,105
21 Plympton, . . .	435,018	-	-	-	309,005
22 Rochester, . . .	959,034	-	-	-	644,280
23 Rockland, . . .	5,228,797	46,500	7,895	2,763,480	2,817,935
24 Scituate, . . .	5,546,205	90,000	140,000	1,572,190	1,802,190
25 Wareham, . . .	5,471,349	180,000	35,000	1,854,075	2,069,075
26 West Bridgewater, . . .	1,554,039	78,625	0	363,188	441,783
27 Whitman, . . .	5,574,234	3,450	2,500	1,286,330	1,292,280
Totals, . . .	\$144,774,961	\$2,813,374	\$596,211	\$38,117,916	\$44,282,245

SUFFOLK COUNTY.

1 BOSTON, . . .	\$1,520,974,526	\$360,000	\$340,000	\$715,735,800	\$716,435,800
2 CHILMARK, . . .	28,070,380	0	0	7,718,350	7,718,350
3 Revere, . . .	20,644,735	0	0	9,616,160	9,616,160
4 Winthrop, . . .	15,380,150	0	0	5,225,750	5,225,750
Totals, . . .	\$1,585,069,991	\$360,000	\$340,000	\$738,296,060	\$738,996,060

NORFOLK COUNTY — Concluded.

AREA OF ASSESSED LAND.				AVERAGE VALUATION PER ACRE.	
Woodland.	Brush and Sprout Land.	All Other Land.	Total.	Woodland.	Brush and Sprout Land.
1,456	402	4,910	6,768	\$74 90	\$10 00
900	900	9,511	10,711	45 00	5 00
2,838	4,252	5,782	12,872	17 59	7 93
45,900	49,069	129,861	230,350	\$40 63	\$12 87

PLYMOUTH COUNTY.

-	-	-	5,888	-	-
4,820	1,000	9,520	15,340	\$15 65	\$5 00
3,015	1,185	9,371	13,771	50 00	10 00
12,000	5,000	5,881	22,881	20 83	2 00
5,787	1,200	7,005	13,992	26 06	7 00
-	2,000	958	7,000	9 58	50 00
-	-	-	9,350	-	7 00
2,500	3,311	3,200	9,011	43 00	10 10
6,000	774	2,500	9,274	30 00	5 02
3,738	2,877	5,912	12,527	25 00	5 00
5	0	1,174	1,179	200 00	-
3,750	5,000	1,636	10,386	20 00	4 00
8,868	4,434	4,434	17,736	25 00	8 00
3,475	1,000	3,770	8,245	43 67	9 76
-	-	-	15,930	-	15 00
2,400	2,400	4,854	9,654	50 00	7 00
8,000	12,226	20,000	40,226	41 76	13 06
5,617	2,100	5,300	12,817	18 13	7 00
5,208	4,000	3,000	12,208	54 95	10 00
8,000	25,000	17,267	50,267	2 00	50 20
-	-	-	8,920	-	21 00
-	-	-	17,575	-	22 00
1,852	583	3,385	5,820	23 14	15 54
6,000	3,600	3,096	9,696	30 00	38 88
6,000	9,000	5,885	20,885	30 00	3 88
3,145	0	6,289	9,434	25 00	-
300	500	3,277	3,977	17 25	5 00
99,280	86,148	133,856	376,947	\$28 92	\$6 94

SUFFOLK COUNTY.

500	500	17,715	18,715	\$720 00	\$690 00
0	0	1,441	1,441	-	-
0	0	2,910	2,910	-	-
0	0	700	700	-	-
500	500	22,766	23,766	\$720 00	\$690 00

WORCESTER COUNTY.

	TOWN OR CITY.	Total Valuation of Assessed Estate April 1, 1913.	VALUATION OF LAND.			
			Wood-land.	Bush and Sprout Land.	All Other Land.	Total.
1	Ashburnham, . . .	\$1,251,803	-	-	-	\$373,855
2	Athol, . . .	5,856,540	-	-	-	1,405,222
3	Auburn, . . .	1,587,000	\$18,000	\$30,000	\$394,070	442,070
4	Barre, . . .	2,633,955	99,399	132,533	430,733	662,665
5	Berlin, . . .	623,265	30,000	6,750	139,465	176,215
6	Blackstone, . . .	2,422,425	-	-	-	721,840
7	Bolton, . . .	678,970	75,893	500	203,000	381,443
8	Boylston, . . .	530,054	50,000	17,890	151,710	319,600
9	Brookfield, . . .	1,364,087	43,357	86,714	216,789	346,860
10	Charlton, . . .	1,287,323	228,620	96,640	171,965	497,225
11	Clinton, . . .	9,153,764	3,000	12,000	2,078,454	2,093,454
12	Dana, . . .	445,970	65,000	500	70,515	136,015
13	Douglas, . . .	1,316,238	150,000	50,353	200,000	400,353
14	Dudley, . . .	2,064,120	7,160	11,500	369,760	388,520
15	Fitchburg, . . .	34,657,649	65,000	12,500	10,257,150	10,334,650
16	Gardner, . . .	10,487,560	29,200	23,240	1,807,490	1,859,930
17	Grafton, . . .	3,049,140	64,320	24,100	471,470	559,890
18	Hardwick, . . .	2,840,595	29,335	8,675	432,285	470,295
19	Harvard, . . .	1,755,139	120,000	73,000	286,122	479,122
20	Holden, . . .	1,514,595	107,290	10,945	379,985	497,330
21	Hopedale, . . .	5,970,624	14,880	9,920	242,185	266,985
22	Hubbardston, . . .	788,078	121,290	32,100	156,025	321,415
23	Lancaster, . . .	6,861,457	75,940	50,633	506,326	633,908
24	Leicester, . . .	2,507,487	110,010	53,175	567,760	730,945
25	Leominster, . . .	13,251,410	75,000	10,000	3,607,170	3,692,170
26	Lunenburg, . . .	1,392,764	101,011	21,727	574,657	697,395
27	Mendon, . . .	693,775	-	-	263,795	263,795
28	Milford, . . .	10,073,063	42,270	29,373	2,503,485	2,575,328
29	Millbury, . . .	2,946,659	-	-	511,905	511,905
30	New Braintree, . . .	423,169	75,000	20,000	132,027	227,027
31	North Brookfield, . . .	1,912,563	37,240	12,104	918,786	469,130
32	Northborough, . . .	1,845,464	66,990	10,000	460,783	537,775
33	Northbridge, . . .	5,526,230	32,000	11,620	462,742	506,362
34	Oakham, . . .	379,796	79,250	23,780	68,265	171,295
35	Oxford, . . .	2,064,479	-	-	-	556,650
36	Paxton, . . .	397,180	71,210	7,166	100,064	178,440
37	Petersham, . . .	1,111,727	-	-	-	522,290
38	Phillipston, . . .	290,360	81,063	19,335	76,722	177,120
39	Princeton, . . .	1,491,188	160,230	12,725	156,733	320,708
40	Royalston, . . .	720,635	132,640	12,300	170,790	335,930
41	Rutland, . . .	856,950	150,000	30,000	122,650	302,650
42	Shrewsbury, . . .	2,502,920	50,000	25,120	866,703	941,823
43	Southborough, . . .	2,140,697	20,000	18,000	524,642	565,642
44	Southbridge, . . .	7,382,086	40,000	19,000	1,450,268	1,509,268
45	Spencer, . . .	3,521,170	200,000	100,000	666,465	666,465
46	Sterling, . . .	1,249,500	186,730	39,435	275,000	501,165
47	Sturbridge, . . .	932,000	97,610	61,620	175,000	334,230
48	Sutton, . . .	1,529,800	100,313	20,062	280,877	401,252
49	Templeton, . . .	1,836,918	47,060	22,298	305,842	376,100
50	Upton, . . .	1,261,187	-	-	-	262,866

WORCESTER COUNTY.

	AREA OF ASSESSED LAND.				AVERAGE VALUATION PER ACRE.		
	Woodland.	Bush and Sprout Land.	All Other Land.	Total.	Woodland.	Bush and Sprout Land.	
-	-	-	-	22,405	-	-	1
-	-	-	-	18,883	-	-	2
-	2,000	7,057	9,657	\$30 00	\$15 00	3	
4,013	5,351	17,390	26,754	24 76	24 76	4	
1,200	1,350	3,069	7,649	25 00	5 00	5	
-	-	-	9,394	-	-	6	
3,796	160	8,229	12,135	19 99	3 00	7	
2,000	1,789	4,056	7,845	25 00	10 00	8	
1,888	3,776	9,462	15,126	22 96	22 96	9	
6,532	13,835	6,548	26,915	35 00	6 98	10	
1,500	800	1,757	2,707	20 00	15 00	11	
8,000	100	3,059	11,159	8 12	5 00	12	
6,638	7,539	7,100	21,277	22 59	6 70	13	
839	1,398	11,331	12,968	29 93	8 29	14	
1,500	2,500	12,162	16,162	43 33	5 00	15	
702	4,655	6,187	11,544	41 59	4 99	16	
804	2,410	9,478	12,692	80 00	10 00	17	
1,317	1,779	20,904	24,000	22 27	4 81	18	
4,000	7,240	5,000	16,240	30 00	10 82	19	
6,449	2,057	12,244	20,750	16 63	5 32	20	
-	372	992	1,448	2,812	40 00	10 00	21
-	5,863	6,654	12,923	25,440	26 87	4 82	22
-	2,404	1,997	11,336	15,737	31 59	25 23	23
-	3,099	5,822	3,451	14,372	35 49	9 13	24
-	3,000	2,000	12,115	17,115	25 00	5 00	25
-	3,808	2,897	10,277	16,982	26 52	7 49	26
-	-	-	-	10,860	-	-	27
2,277	1,007	5,518	8,802	18 56	29 36	28	
-	-	-	-	9,235	-	-	29
2,500	3,329	7,000	12,829	30 00	6 00	30	
1,862	1,513	9,728	13,103	20 00	8 00	31	
2,233	1,000	7,500	10,733	30 00	10 00	32	
1,660	1,660	6,320	9,780	20 00	7 00	33	
1,385	4,756	6,344	12,683	50 00	5 00	34	
-	-	-	16,566	-	-	35	
4,118	1,197	3,861	9,176	17 29	5 98	36	
-	-	-	23,637	-	-	37	
-	4,416	4,262	6,242	14 82	18 35	4 53	38
5,341	2,545	13,544	21,430	30 00	5 00	39	
12,720	2,500	10,500	25,720	12 00	5 00	40	
10,000	6,000	4,779	20,779	15 00	5 00	41	
2,600	2,512	8,271	12,783	25 00	10 00	42	
800	1,000	5,431	7,331	16 00	25 00	43	
400	3,800	6,580	10,780	100 00	5 00	44	
2,000	10,000	8,152	20,152	100 00	10 00	45	
5,700	7,887	5,500	19,087	31 00	5 00	46	
4,532	10,312	7,422	22,266	21 53	5 97	47	
5,969	1,990	11,937	19,896	16 80	10 08	48	
3,362	4,760	6,280	17,242	14 97	4 68	49	
-	-	-	12,976	-	-	50	

WORCESTER COUNTY — *Concluded.*

TOWN OR CITY.	Total Valuation of Assessed Estate April 1, 1915.	VALUATION OF LAND.			
		Wood- land.	Brush and Sprout Land.	All Other Land.	Total.
51 Uxbridge . . .	\$3,759,955	\$92,355	\$68,000	\$525,000	\$685,355
52 Warren . . .	2,448,584	14,735	17,595	499,753	532,083
53 Webster . . .	7,129,702	27,363	25,570	997,219	1,050,152
54 West Boylston . .	951,053	16,200	55,800	150,713	222,713
55 West Brookfield . .	945,261	9,495	5,170	283,638	298,303
56 Westborough . . .	3,273,651	34,247	32,225	704,547	771,019
57 Westminster . . .	990,900	70,000	47,500	270,790	387,290
58 Winchendon . . .	4,301,773	200,000	14,500	1,003,530	1,218,030
59 WORCESTER . . .	162,393,495	-	-	-	50,796,800
Totals . . .	\$355,906,603	\$3,838,615	\$1,536,383	\$37,361,322	\$98,150,254

WORCESTER COUNTY — *Concluded.*

AREA OF ASSESSED LAND.				AVERAGE VALUATION PER ACRE.	
Woodland.	Brush and Sprout Land.	All Other Land.	Total.	Woodland.	Brush and Sprout Land.
3,800	6,800	7,222	17,822	\$24 30	\$10 00
713	1,955	13,851	16,519	20 66	9 00
1,833	2,313	3,395	7,541	14 92	11 09
540	2,790	3,420	6,750	30 00	20 00
545	588	11,334	12,467	17 42	8 79
1,857	2,360	7,634	11,851	18 44	13 65
3,500	9,500	6,499	19,499	20 00	5 00
9,700	3,800	11,228	24,728	20 62	3 82
-	-	-	20,000	-	-
164,117	181,277	409,315	898,565	\$23 39	\$3 47

APPENDIX B.

THE TAXATION OF FORESTS IN EUROPE.¹

A. INTRODUCTORY.

There is very little special legislation relating to forest taxation in Europe. In a few rare cases young planted forests are exempt from taxation, and somewhat oftener there is exemption for "protection forests." But as a rule forests are subject to the regular tax systems without either special favor or special methods of taxation.

Forests in Europe are subject to State and local taxation. Whereas in Germany and Switzerland there is a federal or imperial government above the States, the former government generally obtains its revenue from indirect taxes and other sources, none of which imposes a burden upon forests. Indeed, the federal tariff system may even be a help to forestry. The situation is in this respect similar to that of the United States. This report concerns itself, therefore, with State and local taxation only.

When statistics of tax rates, etc., are presented, the latest available figures have been given, referring in different cases to various years from 1902 to 1911. It has not been thought necessary to specify in every case the year to which the figures relate. As a rule, European tax rates are changed only at rather long intervals, and the changes are apt to be slight. It is believed, therefore, that the figures given in this investigation may be relied upon as representing present conditions accurately enough for the purposes of this report.

B. STATE TAXATION.

1. General.

There is a tendency among the progressive States of Europe toward agreement upon the general outline of their tax systems. As a rule, these systems are based primarily upon income, rather than upon property as in the United States. The general income tax is normally the basis of the system; the tax is

¹ By Fred Rogers Fairchild, Yale University.

usually progressive, the rates increasing with the size of the income. There is always a minimum income exempt from taxation. Supplementing the income tax there is apt to be a property tax, or a system of yield taxes, the purpose of which is to place an extra burden of taxation on what we may call funded incomes; that is, incomes derived from invested capital as distinguished from incomes due to personal service. The above is, of course, a very general statement and numerous exceptions will be found. As a rule, forests are subject to one or more of three important taxes: (1) the income tax, (2) the land tax and (3) the property tax.

2. *The Income Tax.*

Most European States have as a more or less important part of their revenue system a general income tax. This is a tax upon incomes from certain specified sources, which include pretty much all important sources of income. The income from forestry is subject to the income tax where such a tax exists. As a general rule, it may be stated that all receipts, either in money or in kind, are subject to the tax. This includes major cuttings, intermediate yields and incidental uses, and includes also ordinarily the money value of any forest products taken by the taxpayer for his own personal use. The taxable income is normally the net income, deductions being made for the ordinary costs of administration and management. Deductions are also allowed for interest upon debt and to some extent for depreciation of the capital. Costs of reforestation cut-over areas are regarded as expenses and deducted. Costs of establishing new forests, however, are ordinarily not considered expenses, but rather investment of new capital, and are, therefore, not deducted.

The new income tax is a personal tax. It aims to reach the actual income received by the taxpayer from the specified source. In administering the tax, account is also taken of the personal circumstances of the taxpayer, and abatements are allowed where special conditions have impaired taxpaying ability. Such circumstances as the number of dependent members of the family, sickness and accidents, extraordinary losses, etc., may be grounds for an abatement from the normal tax payment.

In the case of forestry some allowance is ordinarily made for irregularities of income by providing that the taxable income in any year shall be the average of the incomes of the forest for a

number of years. Deductions likewise are made for the average administrative expenditures of these periods.

The rates of the income tax vary with the size of the income and are different in different States. It is seldom that the maximum rate exceeds 5 per cent.

In many of the European income tax laws the attempt is made to distinguish between income on the one hand and yields which cause reduction of the capital on the other hand, the general rule being that the taxable income is only such as can be obtained without a reduction of the capital source from which it comes. Obviously, this distinction is very difficult to apply in the case of forestry. Much confusion and disagreement among authorities has arisen over the application of this part of the law. In some States no attempt is made to make such a distinction, but all forest yields are treated alike as forest income subject to taxation.

3. *The Land Tax.*

The ordinary yield-tax system consists of separate taxes on the yields obtained from land, buildings, business and invested capital. The land tax is the member of this group which reaches the yield of forests. It is distinctly a yield tax (*Ertragssteuer*). It is based upon the productivity of the soil, and is measured by the yield which is normally to be expected in view of the general character of the soil and the use to which it is devoted. It is not based upon the actual income received from any particular piece of land. No account is taken of peculiarities, either in the management of the property or in the personal situation of the owner. Having determined the quality of the soil and the general character of the forest stand, it is assumed that the management is the same as normally prevails in that region. Also when the prevailing kind of wood and management have been decided upon, no account is taken of peculiarities in the condition of a particular forest. The owner who by careful management keeps his forest in unusually good condition pays no extra tax on account of the increased yield resulting. On the other hand, the decrease in yield due to neglect, bad management or other causes brings no reduction in the normal yield tax. In determining the money value of the yield, use is made of the average prices of timber and other forest products which have prevailed during a number of past years. The land tax thus lacks both the exactness and the personal character of the income tax.

The yield which is taxed is in some cases the gross income. In most cases, however, certain reductions are made for costs. Account is taken of intermediate yields as well as major cuttings, but there is frequently no account taken of incidental incomes, which in some parts of Europe are a matter of considerable importance. Certain more or less arbitrary deductions are ordinarily allowed for loss of yield through accident, though in certain important States no such deductions are permitted.

The land tax is administered by means of a cadaster. This is a careful survey of all of the lands subject to taxation. In the case of forests it involves the determination of the area, the quality of the soil, the kind of timber and the general character of the stand. It also ascertains the prevailing method of management in the particular region, and the average prices of forest products during a number of past years. Based upon these facts, the yield which is normally to be expected from a unit of land of each particular class is determined, and this normal yield becomes the basis of taxation. Obviously, the construction of the cadaster is an undertaking involving enormous labor and expense and requiring many years to complete. Moreover, when once completed the cadaster tends soon to become obsolete. Changes in method of management, changes in the character of the forest stand, changes in prices of wood, all tend sooner or later to bringing about a wide divergence between the assessed yield of the cadaster and the yield actually being obtained. The time and expense involved in making a new cadaster are so great that old cadasters have always been allowed to remain in force long after they have ceased to conform even approximately to actual conditions.

The land tax cadasters of European nations were established at various times during the nineteenth century. Practically all of them are to-day obsolete. Many are from fifty to one hundred years old. No great State to-day, however, seriously considers the making of a new cadaster, being deterred by the enormous expense and labor involved. As a rule, the result has favored the forest owners. Forest conditions have generally improved since the cadasters were made, and in particular the prices of forest products have risen enormously, with the result that the tax is to-day a far lighter burden than was originally contemplated. With this result, however, goes a tremendous amount of injustice and inequality on account of the change of conditions since the establishment of the cadaster. The rates of the land tax vary greatly, but are not usually very heavy.

Another disadvantage of the European land tax system lies in the fact that when a new forest is established the tax must be paid at once, and continues annually in spite of the fact that for many years there is no yield from the forest. Some few States make allowance for this by providing that new forests shall be exempt from the land tax for a definite period of years, averaging from twenty to thirty years as a rule.

On account of the difficulties inherent in the land tax this form of taxation has gradually declined in importance. In only a few States to-day is it the principal method of taxing forests. In most progressive States the land tax remains only as a supplementary tax in a system based primarily upon other methods of taxation, or else has been given up entirely as a State tax. As a basis of local taxation it is still important and will doubtless long continue.

4. *The Property Tax.*

The property tax in European countries is to be distinguished from the general property tax with which we are familiar in America. The general property tax is a tax levied upon practically all kinds of wealth at a uniform rate. This sort of tax has long ago been abandoned by most European countries. Switzerland is the one nation where the general property tax is still important. Property taxes, however, in the sense of taxes levied upon the capital value of certain specified kinds of wealth, still continue to occupy a position of more or less importance.

The basis of the property tax is theoretically the actual value of the property in question. This means the market value, or the value which corresponds to the average customary price at which property of the character in question is sold. In the case of forests it is, of course, obvious that the intention of the law is not easily carried out, since sales of forests are of infrequent occurrence. Where it is impossible to determine the actual selling price of forests it becomes necessary to fall back upon some other method of determining the value. The method usually chosen is to ascertain the normal yield produced by a given forest and then obtain the proper value by capitalizing this yield at some specified rate of interest. This, of course, makes the property tax quite similar to the land tax, though with this great difference, — the property tax is based not on an ancient cadaster but upon assessments frequently made and revised. This procedure also introduces serious theoretical ques-

tions and administrative difficulties. There is, for instance, much dispute among German foresters over the proper rate of interest for capitalizing forest yields. The property tax has, therefore, shown itself subject to many of the difficulties pointed out in the case of the land tax. Outside of Switzerland no important European country makes the property tax its sole or principal tax. Where it exists it usually serves the purpose of a supplementary tax for the purpose of placing an extra burden upon funded incomes.

The rates of the European property taxes vary greatly, but are normally very much lower than we are familiar with in this country.

The limits of this report will not permit of a detailed study of the tax systems of all the countries of Europe. It will be worth while, however, to examine in some detail the systems of certain important countries.

5. *The Tax System of the German States.*

1. *General.* — The imperial government of Germany obtains its revenue from indirect taxes and certain other sources, none of which imposes a burden upon forests. Forests in Germany, therefore, are subject only to taxation by the separate States of the empire and by the various local bodies. The States obtain most of their revenue from direct taxation.

The principal taxes are the income tax (*Einkommensteuer*), the property tax (*Vermögenssteuer*), and a system of yield taxes (*Ertragssteuer*) levied upon the yield of lands, buildings, business and capital (*Grundsteuer, Gebäudesteuer, Gewerbesteuer, Kapitalrentensteuer*). In addition there are frequently certain other direct taxes and a number of indirect taxes, fees, dues, etc. The only taxes which, however, affect forests are the income tax, the property tax and the ground tax. There is a considerable degree of uniformity in the principal features of the tax systems of the various States. In most of the States the income tax is the basis of the tax system. In such cases there is a supplementary tax (*Ergänzungssteuer*) whose principal object is the imposing of an extra burden upon funded incomes; that is, incomes derived from wealth as distinguished from personal incomes in the shape of wages, salaries, fees, etc. This supplementary tax is generally either the property tax or one or more of the several yield taxes.

What may be called the normal tax system of the German

States, to which the more advanced States have already attained, and toward which the others are tending, consists of the income tax as the basis with the supplementary property tax. Another combination even more common than this is the income tax with supplementary yield tax system, consisting generally of the land tax (including a building tax), the business tax and the capital tax. The latter system, however, though still very common, is tending to be replaced by the system of an income tax with supplementary property tax.

Forests are subject to four combinations of taxes: (1) the income tax as the principal tax with the supplementary property tax in Prussia, Bavaria, Baden, Hesse, Schaumburg-Lippe, Saxe-Coburg-Gotha (Gotha alone); (2) the income tax as the principal tax and the supplementary land tax in the following States: Württemberg, Saxony, Saxe-Weimer, Saxe-Meinigen, Saxe-Altenburg, Anhalt, Schwarzburg-Sondershausen, Schwarzburg-Rudolstadt, Waldeck, Reuss ä. Linie, Reuss j. Linie, Lippe, Bremen, Hamburg, Saxe-Coburg-Gotha (Coburg alone); (3) the income tax as the principal tax with the supplementary property tax and also the ground tax in Oldenburg and Brunswick; (4) the ground tax alone in Mecklenburg-Schwerin, Mecklenburg-Strelitz and Alsace-Lorraine.

2. *The Income Tax.* — The income tax is the most important tax in the German States. It is used by all but three of the twenty-six states, and in every case it is the basis of the tax system.

The rates of the income tax start very low for the smallest taxable incomes and rise progressively to a maximum which rarely exceeds 5 per cent. The lowest rate is usually less than $\frac{1}{2}$ of 1 per cent. In only four cases is the maximum rate higher than 5 per cent., the highest being 8.4 per cent. in Hamburg, according to the law of 1907-08. The maximum rate is 5 per cent. in four States. In all other cases the maximum is less than 5 per cent.

3. *The Property Tax.* — The property tax is used in the German States as a supplementary tax in combination with the income tax, its purpose being to pay an extra burden on funded incomes. There is a certain amount of property exempt, the limit of exemption being frequently raised when the taxable income is below a certain amount. The normal exemption is from 1,000 to 2,000 marks, increased under certain circumstances up to 20,000 marks.

The rates of the property tax are very low and, except in Oldenburg, are not progressive. The rates vary from $\frac{1}{40}$ per cent. to $\frac{1}{10}$ per cent., the commonest rate being $\frac{1}{20}$ per cent., or $\frac{1}{2}$ a mill, upon the value of the property. As in the case of the income tax, the rates are expressed, not as percentages, but as definite sums payable upon property whose value falls between certain limits. The percentage rate, therefore, varies slightly within each class.

4. *The Land Tax.* — The land taxes of the German States are very complicated and far more difficult to summarize than either the income or the property taxes. The taxes are based ordinarily upon old laws, many of them enacted in the early part of the nineteenth century. The rates are often expressed in such a way as to have little connection with modern conditions.

The rates of the land tax are ordinarily expressed as a certain percentage of the assessed net yield. The rates vary all the way from 0.5 per cent. up to 10 per cent. The average of the rates of 14 States is almost exactly 5 per cent. of the assessed net yield. It must be borne in mind, however, that the actual burden of these taxes is ordinarily far below what would be indicated by these rates. As already pointed out above, the yields fixed by the ancient cadasters, on which most of these taxes depend, are usually only a small fraction of the yields actually obtained at the present time.

6. *The Tax Systems of the Swiss Cantons.*

The federal revenues of Switzerland come in the main from indirect taxes and non-tax sources which place no burden upon forests. We are concerned, therefore, only with the tax systems of the separate cantons and with the local taxes. The revenue systems of the various cantons present great differences, but it is possible to make certain general statements covering all the cantons.

First of all it should be noted that something like 13 per cent. of the total receipts of the cantons come from subventions from the general government. This relieves the tax burdens of the cantons to a considerable extent. The cantons impose both direct and indirect taxes, forests being concerned only with the former. The direct taxes which affect forestry are those upon capital or property (Vermögenssteuer) and those upon income (Einkommensteuer). Most of the cantons to-day impose both property and income taxes. The property tax has a more important place in Switzerland than in any other European country.

The cantons may be divided into three groups: (1) Those which impose a property tax and also a tax upon incomes from all sources. This involves a double taxation of the income from property, with a correspondingly lenient treatment of the income from labor and personal service. (2) Those cantons which impose the property tax and also the income tax, but limit the latter to income from labor and personal service. This avoids the double taxation of income from property. (3) Those cantons which impose only the property tax, without any income tax even upon the income from labor and personal service. It is evident that forests will be subject to both the property tax and the income tax in the first group, but only to the property tax in the second and third groups.

There are only four cantons in the first group, — Basel-Stadt, Basel-Land, Solothurn and Tessin, — but in Luzern real estate is subject to the property tax, although its income is also taxed by the income tax. It follows that in these five cantons forests are subject to both the property tax and the income tax: In all of the other twenty cantons forests are subject to the property tax alone, since in these cantons the income tax either applies to personal incomes only or is entirely absent.

The tax rates are generally so arranged as to produce a progressive tax, although there is considerable difference in the methods of the different cantons, the system in some cases being quite complicated.

As a rule, tax rates are seldom changed. In some cantons the rate is fixed in the constitution; in others, in the tax law itself; and in others it is fixed from time to time by the legislative body, sometimes with a legal maximum which may not be changed without the consent of the people.

The rates of the State taxes in Switzerland are, as a rule, very low. The property tax is progressive in fifteen cantons. In the other ten it is not progressive. In the latter group the rates of the property tax vary from 0.03 per cent. to 0.5 per cent., that is, from $\frac{3}{10}$ of a mill to 5 mills. The average is slightly over 0.2 per cent., or 2 mills. In the fifteen cantons having progressive property taxes the lowest rate varies from 0.015 per cent. to 0.25 per cent. The upper limit varies from 0.0187 per cent. to 0.5 per cent. On the average the progressive rate begins at 0.1 per cent. and goes up to 0.24 per cent. The burden of the property tax in these cantons is, therefore, on the average a little less than in the ten cantons whose property tax is not progressive.

The income tax is progressive in all five of the cantons in which it applies to income from forestry. The lower limit varies from 0.1 per cent. to 0.8 per cent. The upper limit is from 0.2 per cent. to 14 per cent. These rates also are distinctly low, with the single exception of the canton of Tessin.

C. LOCAL TAXATION.

1. General.

The investigation of the local tax systems of European countries presents very great difficulties. There is a great diversity both in political organization and in tax machinery among the different countries and even in the different parts of the same country. The laws are frequently very old, in many cases being to-day more or less obsolete. Official statistics of tax rates and results, while greatly superior to what we have in America, are still fragmentary and incomplete. Students of European forest taxation in particular have almost universally stopped short of this part of the field. Under these circumstances it is impossible to give anything approaching a complete account of the local taxation of forests in Europe, even if it were possible to include such an account within the limits of this report. The following discussion is offered in the hope that it may give at least a rough idea of the local taxation of forests in Europe, — an idea which it is hoped may be sufficient for practical purposes.

The local bodies of Europe are generally of three or four grades. The State is ordinarily divided, first, into a number of provinces or administrative districts. These in turn are separated into smaller districts (Kreise) and, finally, we come to the lowest division, namely, the communes or parishes (Gemeinden). The two upper grades may be said to correspond in general to the counties of an American State. The communes correspond to our towns and townships.

As a general rule the local bodies of European countries obtain their revenue (1) from various contributions from the State or other higher political bodies; (2) from communal property and public industrial enterprises; (3) from various fees, licenses, etc., and (4) from taxation. Taxes are ordinarily relied upon to make up whatever deficit remains after the revenues from other sources have been applied to cover expenditures.

The upper communal bodies are usually of less importance than the communes, and as a general rule their needs, so far as they are not covered by the revenue from communal property and

industries, are apt to be met either by subventions from the higher bodies, or by contributions apportioned among the communes of which they are composed. As a rule, therefore, it is usually possible to determine the burden of taxation by directing the attention to the communes alone. This is, of course, a very general statement to which many exceptions will be found.

The local taxes to which forests are subject are the same as those imposed by the States, *i.e.*, the income tax, the land tax and the property tax. The property tax is of less importance and the ground tax of far more importance, in local than in State finance. In imposing these three taxes the local bodies generally rely upon the tax machinery furnished by the State for the collection of the same taxes.

The taxation of the local bodies, as a rule, consists in additional rates imposed upon the principal State taxes, in somewhat the same way as the States, counties and towns share in the general property tax in this country, the chief difference being that in Europe the tax is a State tax and the administration in the hands of State officials, the local bodies merely adding their necessary rates. Where a State obtains its revenue, for example, from the income tax and the property tax, local bodies may add their own additional rates to one or both of these taxes. It should be mentioned, also, that in many States where the land tax has been given up as a State tax it is still kept in force as a basis for the addition of local rates, and so continues to be a source of local revenue. The rates of the local taxes on income, property and land show the utmost variety. Many of the communes impose no taxes whatever, securing all necessary revenue from the other sources named. Among those communes which impose taxes the rates vary all the way from almost nothing to three or four times the State rate. Maximum limits are often fixed by State law.

2. Local Taxation in Germany.

An idea of the communal tax system of Germany may be obtained from the following account of the systems of Prussia and Hesse. It is obviously out of the question to present a detailed account for each of the German States.

1. *Prussia.* — The political bodies in the kingdom of Prussia which have independent financial systems are (1) the State, that is, the kingdom itself; (2) the provinces; (3) the Kreise; and (4) the cities, towns, parishes or communes (*Gemeinden*). The

kingdom is divided into 13 provinces which are in turn composed of 586 Kreise. The latter in turn contain 37,290 *Gemeinden*.

The expenditures of the provinces are met by direct taxes which are apportioned between the Kreise. The Kreise obtain revenue from both direct and indirect taxes. The direct taxes of the Kreise are in turn apportioned among the *Gemeinden* of which they are composed. There are, therefore, no separate direct taxes imposed by the higher communal bodies. Indirect taxes do not affect forests. For the purpose of forest taxation we are concerned, therefore, only with the system of direct taxes levied by the State and by the lowest local governments or *Gemeinden*.

The direct taxes of the Prussian *Gemeinden* are (1) the yield-tax system, comprising the land tax, the building tax and the business tax, and (2) local additions (*Zuschläge*) to the State income tax. Local additions to the State property tax are not permitted.

The yield-tax system is the group of taxes which was given up as a source of State revenue in 1893. The State maintains the system, however, as a basis for the local taxation.

Forests are subject to the land tax. This is assessed by the State, and upon this assessment each of the local bodies imposes its rate. In general, the basis of assessment is the net yield obtained by deducting from the gross yield the necessary costs of harvesting and management, assuming the average methods of management. Ordinarily the average of a number of previous years is taken. The assessment is based upon a cadaster provided in the law of 1861.

In 1909 the assessed net yield of the land tax amounted to 441,000,000 M., of which 403,000,000 M. was in the county districts. The assessed tax in 1909 amounted to 41,000,000 M., of which 38,000,000 M. was in the country districts. These figures indicate an average rate throughout the whole of Prussia of about 9½ per cent. It must, of course, be remembered that the net yields upon which the land tax is assessed are the result of an ancient cadaster and are, as a rule, far below the yields actually obtained to-day.

In addition to the land tax forests are subject to the local additions to the State income tax. The rates of these local additions show the greatest variations. Statistics of the communal tax rates are available only for the larger communes. The following list relates to the country communes of over 10,000 inhabitants in 1905 and 1911. It shows in each year the number

of communes whose additions to the State income tax were less than 50 per cent., 50 to 100 per cent., etc. Probably these thickly settled communes are not generally the ones having the largest forest areas. The figures are as follows:—

	1905.	1911.
Number of communes having rates under 50 per cent.,	—	—
Number of communes having rates from 50 to 100 per cent.,	9	8
Number of communes having rates from 100 to 125 per cent.,	15	8
Number of communes having rates from 125 to 150 per cent.,	17	12
Number of communes having rates from 150 to 175 per cent.,	18	6
Number of communes having rates from 175 to 200 per cent.,	17	24
Number of communes having rates from 200 to 225 per cent.,	3	19
Number of communes having rates from 225 to 250 per cent.,	6	22
Number of communes having rates from 250 to 275 per cent.,	2	3
Number of communes having rates from 275 to 300 per cent.,	1	1
Number of communes having rates of 300 per cent.,	1	1
Total number of country communes (over 10,000 inhabitants),	89	104

2. *Hesse*.—The political bodies in the grand duchy of Hesse which have independent financial systems are (1) the State, that is, the grand duchy itself; (2) the provinces; (3) the Kreise; and (4) the local bodies, parishes or communes (*Gemeinden*). The grand duchy is divided into 3 provinces, which are in turn separated into 18 Kreise, containing 992 *Gemeinden*.

The expenditures of the provinces and Kreise are met by revenues obtained from contributions from the *Gemeinden*. As in the case of Prussia, therefore, we are concerned only with the system of direct taxes levied by the State and the *Gemeinden* so far as the taxation of forests is concerned.

The direct taxes imposed by the communes (*Gemeinden*) consist of additions to the State income tax and the State yield taxes (land tax, business tax and capital tax). Additional rates are not permitted upon the State property tax. In 1901 when the land tax, business tax and capital tax were abolished as State taxes, the laws and the machinery of administration were kept in force in order to serve as a basis for the tax systems of the communes.

The method of levying the communal taxes is somewhat complicated. The net yields from land, from business and from capital are determined in accordance with the provisions of the

three laws relating to the three kinds of yield. The incomes thus determined are called the tax capitals. Fifteen per cent. of these tax capitals furnishes the base for the assessment of the land tax, business tax and capital tax. The law provides that for every 1 per cent. addition to the State income tax there must be 2 per cent. imposed upon this base. It should be noted that the addition to the State income tax is expressed not as a percentage of the income, but as a percentage of the amount raised by the State income tax for State purposes. As a result the basis for the assessment of the communal direct tax consists of the sum of the doubled base for the assessment of the land tax, business tax and capital tax (that is, 30 per cent. of the determined yields) plus the total amount raised by the State income tax.

Upon this sum as a base each commune may levy a rate sufficient to produce the revenue which it requires. The rate is expressed as a percentage of the doubled base plus the entire income tax.

The official statistics show the following results of the direct taxes levied by the communes. The basis upon which the taxes were levied, that is, the sum of the doubled base and the entire State income tax, amounted to 22,678,558 M. for all of the communes of the grand duchy in 1908. The total amount of taxes assessed on this basis was 25,109,780 M. The average rate assessed upon this basis was, therefore, a little over 100 per cent. or, to be exact, 111 per cent. On the average, then, this means that the result of the local taxes was to a little more than double the burden of the general income tax, since the local bodies on the average added *Zuschläge* to the State income tax of a little over 100 per cent. of the amount raised for State purposes.

From the tax upon land, business and capital an amount was raised equal to a little over 30 per cent. of the yields from such property as determined by the respective laws, that is, 30 per cent. of the net yield. It must be remembered, however, that the rates imposed vary greatly among the different communes.

In 1908, out of the 881 communes 3 were entirely free from taxation; that is, obtained sufficient revenue from other sources, so that it was unnecessary for them to impose any additions upon the basis of the yield taxes and the State income tax.

39 communes imposed rates under 50 per cent.

18 communes imposed rates from 50 to 60 per cent.

95 communes imposed rates from 60 to 80 per cent.

194 communes imposed rates from 80 to 100 per cent.
 172 communes imposed rates from 100 to 120 per cent.
 159 communes imposed rates from 120 to 140 per cent.
 119 communes imposed rates from 140 to 160 per cent.
 75 communes imposed rates from 160 to 180 per cent.
 48 communes imposed rates from 180 to 200 per cent.
 62 communes imposed rates above 200 per cent.¹

It would appear from the above that the rates of the local income tax are moderate, being just about equal to the State income tax rates. On the other hand, the land tax rates, being on the average about 30 per cent. of the determined net yield, appear very high. It must be remembered, however, that the net yields fixed by law are based upon a cadaster provided in the law of April 13, 1824, and put into operation by the administrative instruction of Jan. 31, 1825. This cadaster is, of course, entirely obsolete at the present date, and yet the yields thus determined are still the basis of the communal ground tax. Better use of the land, new forest products which were formerly worthless, and, above all, enormous increases in the prices of forest products have greatly increased the yield of forest land during the century which has passed since this cadaster was made. As a result, the legally fixed yield bears little relation to the actual yields of forest property. It was officially stated as far back as 1872 that the actual yields from land often amounted to from 3.4 to 13 times the amount of the ground tax capitals. In general it is safe to say that they represent only a small fraction of the actual yield now obtained, although it must not be forgotten that there is the greatest diversity as between different forest properties. Without knowing the present relation between the legal yields and the actual yields it is impossible to say what is the actual burden of the communal land tax. Exactly the same difficulty is met by the student of American local taxation, who is confronted in published statistics with lists of property tax rates apparently enormously high, whose real burden can be understood only when one knows the ratio of assessed to true value of property. A law which went into effect in March, 1913, makes some changes in the basis of the local land tax and in the distribution of local revenues between the different taxes. This law has not been taken account of in the above discussion for the reason that there are as yet no statistics showing the result of its operation.

¹ The highest per cent. was 280.

3. Local Taxation in Switzerland.

1. *General.*—The system of local taxation in Switzerland is exceedingly diverse, and its description, even in a summary way, is very difficult. The following general description will suffice.

The Swiss communes (*Gemeinden*) obtain revenue from subventions from the cantons, from direct taxation and from various other sources. Only the direct taxes impose a burden upon forests. The principal communal taxes are the property tax and the income tax upon the yield of labor and personal service. Progression is generally not allowed. As a general rule, it may be said that forests are subject to communal taxes only through the communal property tax.

There is a great variety in the rates of the communal property tax in the different cantons and in the different communes of each canton. Many communes impose no property tax whatever. The following are the average rates of the local property taxes in the communes of the different cantons.

The rates are highest in St. Gallen, Appenzell A.-Rh., Tessin, Zürich, Thurgau, Schwyz and Valais, being as follows:—

	Per Cent.
St. Gallen,	1.0-1.2
Appenzell A.-Rh.,	0.6-0.7
Tessin,	0.4-0.5
Zürich,	0.6-0.8
Thurgau,	0.4-0.5
Schwyz,	0.5-0.6
Valais,	0.5-0.6

The following from an intermediate group:—

	Per Cent.
Bern,	0.3-0.50
Luzern,	0.2-0.30
Obwalden,	0.2-0.25
Nidwalden,	0.3-0.40
Glarus,	0.3-0.40
Zug,	0.3-0.40
Appenzell I.-Rh.,	0.2-0.30
Aargau,	0.2-0.40
Vaud,	0.1-0.30
Neuchâtel,	0.2-0.30

The following have very low rates: —

	Per Cent.
Uri,	0.05-0.1
Fribourg,	0.10-0.2
Basel-Land,	0.10-0.2
Schaffhausen,	0.10-0.2

It is evident from the table above that the rates of the local property tax are distinctly low as compared with American property tax rates. Of the 21 cantons listed, the average of the communal rates ranges from 0.317 to 0.44 per cent., that is, from a little over 3 mills to about $4\frac{1}{2}$ mills. Even in the first group of cantons having high local rates, the average is only from $5\frac{1}{2}$ to 7 mills. Only in the single canton of St. Gallen do the rates approach what would be regarded as a moderate rate in the United States.

D. SUMMARY AND CONCLUSIONS.

From the foregoing discussion certain conclusions may be drawn. First of all, it will be apparent that the basis of forest taxation in Europe is income or yield rather than property value. The general income tax is obviously a tax upon the product of the forest and not at all upon its capital value. The income tax is the basis of the tax system in most of the important European States, and is distinctly the most important tax to which forests are subject.

The land tax is technically a yield tax, but in actual practice is only roughly so. As has been shown, the land tax is generally obsolete, and to-day has little relation to the yields actually obtained. Nevertheless, its fundamental principle is yield rather than property value. The land tax is gradually declining in importance.

The property tax, on the other hand, is a common tax among many important European countries. It is, in fact, increasing in importance as a source of State taxation in Germany, where it tends to supersede the old land tax, and is the most important tax levied by the cantons of Switzerland. These facts, however, do not contradict the statement that property value is not the principal basis of forest taxation.

The reason is that the property taxes of Europe are in general imposed at exceedingly low rates. Except in Switzerland, it is not generally intended that the property tax shall yield a large

part of the revenue of the State. The function of the property tax in the German States, for instance, is that of a supplementary tax, — to impose a heavier burden upon funded incomes. Even in Switzerland where the property tax forms the backbone of the tax system the rates are very low as compared with property tax rates in the United States. We are justified in the statement, then, that the bulk of the tax burden placed upon forests in Europe is related to forest yield or income rather than to capital value.

It may further be concluded from the investigation above that, on the whole, the taxes to which European forests are subject are moderate in amount. The States of Germany and the cantons of Switzerland have been taken as examples for the study of tax rates. In the States of Germany, for instance, the income taxes are imposed at progressive rates, beginning usually somewhere below $\frac{1}{2}$ of 1 per cent. and usually not rising above 4 per cent. Only four German States have an upper limit higher than 5 per cent., and only four States have an upper limit equal to 5 per cent. Moreover, it must be remembered that the upper limits apply only to very large incomes. Moderate incomes are seldom taxed more than 2 or 3 per cent. by the German States.

Forests in Germany must generally pay in addition to the income tax also the land tax or the property tax; in a few cases all three. The rates of the property tax in the German States are, however, extremely low when compared with American standards. The rates vary from $\frac{1}{4}$ of a mill to 1 mill, the commonest rate being $\frac{1}{2}$ a mill. The land tax rates vary from $\frac{1}{2}$ of 1 per cent. to 10 per cent. of the assessed net yield, averaging about 5 per cent. Moreover, it is to be remembered that the actual burden of these land taxes is far less than would appear from the rates, owing to the fact that the official yields are determined according to ancient cadasters, and are usually only a small part of the yields actually obtained to-day.

In Switzerland forests must everywhere pay the property tax, and in five cantons must in addition pay an income tax. The rates of the non-progressive property taxes vary from $\frac{3}{10}$ of a mill to 5 mills, averaging about 2 mills. Where the property tax rates are progressive they average from 1 mill to 2.4 mills. Altogether, we may say that the average burden of the Swiss property taxes is 2 mills or less.

The income taxes are also moderate. With the exception of a single canton in which the upper limit is high, the income tax

rates vary from $\frac{1}{10}$ of 1 per cent. to 1.8 per cent. These distinctly low income tax rates are combined in the five cantons which impose them with moderate property tax rates.

It is obvious that the State taxation in Germany and Switzerland is distinctly moderate. To the burden of State taxation, however, must be added local taxes. Here the difficulty of obtaining accurate information as to tax rates is very great. From the facts already presented, however, we may arrive at certain limited conclusions.

In Prussia the average rate of the communal land tax appears to be about $9\frac{1}{2}$ per cent. Once more it must be remembered that the actual burden is only a small part of what would be indicated by this rate, owing to the low assessment of yield. The local additions to the State income tax probably somewhat more than double its burden on the average. In Hesse the local land taxes average, on the face of the returns, about 30 per cent. of the assessed net yield. The actual burden is without doubt a very small fraction of this rate. The local additions to the State income tax in Hesse are just about equal to the amount collected for State purposes. The rates of the State income tax, as has been shown, vary between $\frac{1}{2}$ of 1 and 5 per cent. If we assume $3\frac{1}{2}$ per cent. as a fair average rate, we conclude that forests in Hesse are subject to the following taxes: (1) the State income tax at the average rate of $3\frac{1}{2}$ per cent.; (2) local additions to the income tax amounting on the average to $3\frac{1}{2}$ per cent. more; (3) the State property tax at the rate of $\frac{3}{4}$ of a mill; and (4) the local land tax, the official rate of which averages about 30 per cent., the actual burden, however, being only a small fraction of this.

If we turn to Switzerland we find that the local taxes are imposed upon property at rates averaging from 3 mills to $4\frac{1}{2}$ mills. To arrive at some notion of the total burden of forest taxation we may take certain selected cantons. In Bern forests must pay a State property tax at the rate of $2\frac{1}{2}$ mills and a communal property tax varying according to the commune from nothing at all up to 6 mills.

In Tessin forests pay (1) a State property tax at the rate of 2 mills; (2) a State income tax at progressive rates from $\frac{1}{2}$ of 1 per cent. to 14 per cent.; and (3) a communal property tax varying according to the commune from nothing at all up to 2 per cent. Only a very few of the communes imposed rates anywhere near the upper limit. Of the 264 communes only 43

imposed taxes at rates exceeding 7 mills. Tessin, it should be said, is one of the cantons in which the tax burden is unusually high.

In the canton of Uri we have a remarkably low tax burden. Forests must pay (1) a property tax at progressive rates from $\frac{1}{2}$ a mill to $1\frac{1}{2}$ mills, and (2) a communal tax, the highest rate of which is $2\frac{1}{2}$ mills.

In drawing conclusions regarding the burden of local taxation it must never be forgotten that there is the greatest variation between the different communes. It must especially be borne in mind that a considerable part of the revenues of European local bodies is obtained from communal property or public enterprises and from other non-tax sources. In a great many localities this revenue is sufficient to meet all needs, so that no local taxes whatever are imposed. Many forest properties, therefore, will find themselves subject only to State taxes.

We conclude, then, that the European methods of taxing forests are, on the whole, favorable to the development of forestry. The tax burden is, as a rule, moderate, in many cases distinctly low, and in most cases imposed in such a way as to bear a more or less close relation to the actual income obtained, so that the evils of taxation based purely upon property value are avoided. While forests are doubtless made to bear their fair share of the costs of government, this burden is so imposed, as to amount and method, as not to be a serious handicap, certainly not an insuperable obstacle, in the way of the best use and development of the forests.

APPENDIX C.

DRAFT OF AN ACT TO PROVIDE FOR THE CLASSIFICATION AND TAXATION OF WILD OR FOREST LAND.

Be it enacted, etc., as follows:

1 SECTION 1. Owners of woodland or land suitable for
2 forest planting may have such land classified for taxation
3 under the following designations: —
4 (a) Land with trees of merchantable value shall be known
5 as wood lot.
6 (b) Land without trees of merchantable value shall be
7 known as plantation.
8 (c) Such tracts of woodland as may be reserved for public
9 recreation or for other purposes of public interest shall be
10 known as forest reservations.
11 No tract of land containing less than three acres shall be
12 classified unless such tract is to be consolidated with other
13 tracts under the provisions of section thirteen of this act.

CLASSIFICATION.

1 SECTION 2. Any owner of land suitable for classifica-
2 tion as wood lot or plantation who desires to have said land
3 classified shall make application, in such form as the tax
4 commissioner shall from time to time prescribe, to the clerk
5 of the city or town in which said land is situated. Said
6 application shall state whether or not said land is encumbered
7 by mortgages, leases, attachments, or other valid liens, except
8 rights of way; and shall state also whether other persons
9 than the applicant have an interest or interests in said land.
10 In either case, said application shall be accompanied by the
11 written assent of such mortgagees, lessees, attaching creditors,
12 or other lienors, and other person or persons having such
13 interest or interests, to said classification, which assent shall
14 be under seal and in such form as the tax commissioner shall
15 from time to time prescribe. Said application shall be
16 accompanied by such description by metes and bounds as

17 may be contained in the last conveyance of the land, or by
18 two copies of a plat showing the location of the land by
19 metes and bounds, and in either case shall give a reference
20 to the book and page of the record of said conveyance. If
21 the land to be classified comprises a portion of the land
22 described in any conveyance, said application shall be
23 accompanied by such a description by metes and bounds as
24 will be sufficient to identify said portion, or by two copies of
25 a plat showing the location of such portion by metes and
26 bounds, and in either case shall give a reference to the book
27 and page of the record of said conveyance. The aforesaid
28 clerk shall forthwith notify the assessors of the city or town of
29 the filing of said application. Said assessors shall forthwith
30 determine whether the aforesaid land is suitable for classifica-
31 tion; and if they so determine, shall within thirty days make
32 separate valuations of the land and of the value of the trees
33 growing thereon, which value shall be the fair cash value of
34 the trees on the stump, hereinafter called stumpage value.
35 Said assessors shall make separate valuations of such build-
36 ings, if any, as may be located upon said land. They may
37 also require the forest warden of said city or town to give
38 such assistance as they may deem necessary in making the
39 aforesaid determinations and valuations. If said assessors
40 shall determine that said land is not suitable for classification
41 as aforesaid, they shall forthwith give notice thereof to the
42 owner, who may appeal from such decision to the state
43 forester. The state forester, after investigation and after
44 hearing the persons interested, shall decide whether said land
45 is suitable for classification, and shall notify said owner and
46 said assessors of such decision. If he shall decide that the
47 land is suitable for classification, the said assessors shall,
48 within thirty days thereafter, make the aforesaid valuations.

1 SECTION 3. Said assessors shall, within ten days after the
2 completion of said valuations, send written notice thereof, in
3 such form as the tax commissioner shall from time to time
4 prescribe, to the owner of the land; and the valuations so
5 determined shall be conclusive unless said owner, within ten
6 days after receiving them, files notice of an appeal to the
7 tax commissioner from any or all thereof. In case of such
8 appeal, the tax commissioner or his deputy, after investiga-
9 tion and after hearing the persons interested, shall make

10 final determination of said valuation or valuations, and shall
11 notify said owner and said assessors of his findings, which
12 shall be conclusive.

1 SECTION 4. Upon the final determination of the aforesaid
2 valuations, the owner, if he desires to complete the aforesaid
3 classification, shall, within ten days, notify the clerk of the
4 city or town of his acceptance of such valuations; and such
5 notification shall constitute a full acceptance of the conditions
6 and requirements of this act. Said clerk may, with the con-
7 sent of the tax commissioner, receive and file such notification
8 after said time has elapsed. Upon receipt of such notifica-
9 tion, said clerk shall forthwith classify said land and shall
10 notify the assessors of the city or town; but if the notifi-
11 cation from the owner is not received on or before the first
12 day of April in any year, the provisions of this act relating
13 to taxation shall not take effect until the first day of April
14 of the following year: *provided*, that in the year nineteen
15 hundred and fourteen said provisions relating to taxation shall
16 take effect as of the first day of April, if the aforesaid notifica-
17 tion from the owner is received on or before the first day of
18 July. Said clerk shall also file for recording in the registry
19 of deeds for the county in which the land is situated, a
20 certificate of the classification of said land, which certificate
21 shall contain the name of the owner of the land, the date of
22 classification, the designation of the land classified, and a
23 copy of the description of said land or of the plat, required
24 by section two of this act. Said clerk shall receive from the
25 applicant a fee of two dollars for each such certificate of
26 classification, and shall receive a fee of fifty cents for each
27 subsequent copy thereof; and in addition said clerk shall
28 receive the usual fee for recording said certificate in the
29 registry of deeds, which fee shall be transmitted with said
30 certificate to the registrar of deeds. Upon the recording of
31 said certificate, said land shall thereafter be subject to all the
32 conditions and requirements of this act unless said land is
33 withdrawn from classification; and said conditions and re-
34 quirements shall be binding upon any owner thereof, his
35 heirs and assigns, upon all persons who have assented to said
36 classification, and upon all persons subsequently acquiring
37 any interest in said land.

TAXATION OF CLASSIFIED FOREST LAND.

1 SECTION 5. Land classified under this act shall be exempt
2 from taxation except such as is imposed by this act, but shall
3 be liable to the same extent and in the same manner as other
4 land for special assessments. Buildings situated upon such
5 land shall be subject to taxation as real estate under the
6 provisions of chapter four hundred and ninety of the acts of
7 the year nineteen hundred and nine.

FOREST LAND TAX.

1 SECTION 6. Land classified under the provisions of this
2 act shall, except as provided in section nine of this act, be
3 subject to forest land tax. Said tax shall be assessed, levied
4 and collected in the manner prescribed in chapter four hun-
5 dred and ninety of the acts of the year nineteen hundred and
6 nine for the taxation of real estate within the commonwealth,
7 upon its fair cash value exclusive of the value of all buildings
8 and the value of all trees growing thereon: *provided*, that
9 owners of classified land, instead of prosecuting an appeal, as
10 provided in sections seventy-six to eighty of Part I. of the
11 aforesaid act, may, at their option, within thirty days after
12 receiving the notice provided by section seventy-five of Part
13 I. of the aforesaid act, appeal to the tax commissioner. If
14 said tax commissioner or his deputy, upon a hearing, finds
15 that the aforesaid land has been overvalued, he shall make a
16 reasonable abatement and an order as to costs.

FOREST COMMUTATION TAX.

1 SECTION 7. Land classified under this act as wood lot
2 shall be subject to forest commutation tax, which shall be
3 assessed and levied annually as of the date April first by
4 each city and town in the following manner: —
5 (a) An account shall be opened by the assessors of each
6 city or town for all lands classified as wood lot on or before
7 April first, nineteen hundred and nineteen, and not with-
8 drawn, which account shall show the sum of the taxes
9 assessed upon such lands, exclusive of buildings thereon, in
10 the year nineteen hundred and thirteen.
11 (b) From the aforesaid sum there shall be deducted,
12 in each year from nineteen hundred and fourteen to nine-
13 teen hundred and nineteen, inclusive, the total amount of

14 forest land tax assessed for said year in the city or town,
15 and the remainder shall be the total amount of forest
16 commutation tax of the city or town for said year.

17 (c) The total amount of forest commutation tax thus
18 determined for each year from nineteen hundred and four-
19 teen to nineteen hundred and nineteen, inclusive, shall then
20 be apportioned to the various tracts of wood lot, in propor-
21 tion to the stumpage value of the trees growing thereon at
22 the date of classification, as determined in accordance with
23 section two of this act; and the several amounts thus
24 ascertained shall be the amounts of forest commutation tax
25 for which said tracts shall respectively be liable for said
26 year.

27 (d) Upon the completion of the assessments for the year
28 nineteen hundred and nineteen the account provided for in
29 subsection *a* shall be closed; and each tract of wood lot
30 classified on or before the first day of April of said year shall
31 thereafter be liable for the same amount of forest com-
32 mutation tax that was levied in the said year nineteen
33 hundred and nineteen, except as provided in subsections
34 *g*, *h*, *i* and *j* of this section.

35 (e) Upon every tract of land classified as wood lot in any
36 city or town after April first, nineteen hundred and nineteen,
37 the annual amount of forest commutation tax shall be the
38 amount of tax assessed and levied upon such tract, exclusive
39 of the buildings thereon, in the last assessment and levy
40 prior to the date of classification, less the amount of forest
41 land tax assessed and levied in the next assessment and levy
42 subsequent to said date of classification.

43 (f) Forest commutation tax shall be collected in the
44 manner prescribed by Part II. of chapter four hundred
45 and ninety of the acts of the year nineteen hundred and
46 nine for the taxation of real estate within the common-
47 wealth.

48 (g) In case of the destruction by fire or otherwise on or
49 before April first, nineteen hundred and nineteen, of trees
50 standing upon land classified as wood lot, the owner of said
51 land may apply to the assessors of the city or town for a
52 reduction of forest commutation tax. Such application shall
53 not be made except in respect of trees of a value equal to or
54 in excess of ten per cent of the stumpage value of the trees
55 standing on the land at the time of classification. The

56 assessors shall determine what proportion of said stumpage
57 value of the trees has been destroyed by fire or otherwise,
58 and shall make a proportionate reduction in the valuation
59 of said trees in determining the amount of forest commuta-
60 tion tax which said land shall thereafter pay. The assessors
61 may require the forest warden of the city or town to give
62 such assistance as may be necessary in determining the said
63 proportion of stumpage value so destroyed. The assessors
64 shall also deduct from the total amount of forest commuta-
65 tion tax thereafter levied in the city or town an amount of
66 tax proportionate to any and all reductions in valuations
67 made to landowners in accordance with the provisions of
68 this subsection. From the aforesaid determination of the
69 assessors, the owner may appeal to the tax commissioner
70 in the manner provided in section six of this act.

71 (h) In case of the destruction by fire or otherwise, sub-
72 sequent to April first, nineteen hundred and nineteen, of
73 trees standing upon land classified as wood lot under this
74 act, the owner of said land may apply to the assessors of the
75 city or town for a reduction of forest commutation tax.
76 Such application shall not be made except in respect of
77 trees of a value equal to or in excess of ten per cent of the
78 stumpage value of the trees standing on the land at the
79 time of classification. The assessors shall determine what
80 amount and proportion of said stumpage value of the trees
81 has been destroyed by fire or otherwise, and shall make a
82 proportionate reduction in the forest commutation tax for
83 which the aforesaid owner shall be liable. The assessors
84 may require the forest warden of the city or town to give
85 such assistance as may be necessary in determining the said
86 proportion of stumpage value so destroyed. From said
87 determination of the assessors, the owner may appeal to the
88 tax commissioner in the manner provided in section six of
89 this act.

90 (i) On and after April first, nineteen hundred and nine-
91 teen, any owner of land classified as wood lot may, as here-
92 inafter provided, apply to the assessors of the city or town
93 for a reduction of the amount of forest commutation tax
94 for which the said owner is liable. Such application may be
95 made only in respect of trees upon which forest product tax
96 has been paid; and may not be made except in respect to
97 trees of a stumpage value equal to or in excess of ten per

98 cent of the stumpage value of the trees standing upon the 99 land at the date of classification. Upon receipt of such 100 application, the assessors of said city or town shall reduce 101 the forest commutation tax for which the aforesaid owner is 102 liable in any subsequent year, by a percentage equal to the 103 percentage which the stumpage value of the aforesaid trees 104 bears to the stumpage value of the trees standing upon said 105 land at the date of classification.

106 (j) When the reductions in valuations made in accordance 107 with subsections *g*, *h* and *i* shall equal the stumpage value of 108 the trees determined to have been standing on the wood lot 109 at the date of classification, the said wood lot shall no 110 longer be liable for forest commutation tax and shall there- 111 after be treated as if it had been classified as plantation.

FOREST PRODUCT TAX.

1 SECTION 7. All land classified under this act shall be 2 subject to forest product tax, which shall be assessed, 3 levied and collected in the following manner:—

4 (a) Except as provided in subsection *e* of this section, 5 every owner of land classified under this act shall, on or be- 6 fore the first day of May in each year, report to the assessors 7 of the city or town in which said land is situated, under 8 oath, in such form as the tax commissioner shall from time 9 to time prescribe, the gross amount and stumpage value of 10 all wood cut from said land during the twelve months pre- 11 ceding the first day of April, as well as the gross amount of 12 all other products of said land and such other income de- 13 rived from said land as does not constitute an element de- 14 termining the value of the land for the purpose of assessing 15 forest land tax. In the case of wood, the aforesaid value 16 shall be the stumpage value, and in other cases, it shall be 17 the fair cash value.

18 (b) Except as provided in subsection *e* of this section, 19 immediately after the cutting of trees and not less than ten 20 days before the removal of any wood from land classified 21 under this act, the owner shall notify the aforesaid assessors 22 of such intended removal, and report the amount and 23 stumpage value of such wood. Every such owner or his 24 agent or representative who fails to comply with the fore- 25 going requirement shall be liable to a fine of not less than 26 ten nor more than one thousand dollars. The aforesaid

27 assessors shall have the right, after inspection, to make an 28 independent determination of the amount of such wood or 29 the stumpage value thereof, or both, and shall forthwith 30 notify the owner thereof. Said assessors may require the 31 forest warden of the city or town to give such assistance as 32 may be necessary. Such determination shall be final and 33 conclusive unless the owner shall forthwith file with said 34 assessors either a notice of an appeal to the state forester 35 or a written request for an arbitration. Such appeal or 36 arbitration may be had as to the amount or stumpage 37 value of said wood, or both. Upon such appeal, the state 38 forester of his assistant shall, after inspection, make final 39 determination thereof, and an order as to costs. If arbitra- 40 tion be requested, such arbitration shall be by three dis- 41 interested persons, one to be chosen by said owner, one by 42 said assessors, and the third by the agreement of the two 43 thus chosen; and the decision of the arbitrators shall be 44 final and conclusive. The fees and expenses of said arbi- 45 trators shall be paid by the aforesaid city or town, and one- 46 half the amount thereof shall be assessed upon said land 47 and included in the next warrant committed by said assessors 48 to the collector of taxes for the collection of forest product 49 tax.

50 Under such regulations as the tax commissioner may pre- 51 scribe, owners of land may, with the written consent of 52 said tax commissioner, be exempted from the requirements 53 of this subsection; and the aforesaid regulations shall govern 54 the determination of amounts and stumpage values of wood 55 for the assessment and levy of forest product tax.

56 (c) Except as provided in subsection *e* of this section, 57 forest product tax shall be annually assessed and levied 58 upon the gross value of all wood, other products and other 59 income ascertained as provided in subsections *a*, *b* and *d* 60 of this section, at the following rates:—

61 For wood cut or other products or income derived from 62 said land prior to the first day of April, nineteen hundred 63 and nineteen, the tax thereon shall be one per cent; from 64 said first day of April, nineteen hundred and nineteen, to the 65 thirty-first day of March, nineteen hundred and twenty-four, 66 inclusive, two per cent; from the first day of April, nineteen 67 hundred and twenty-four, to the thirty-first day of March, 68 nineteen hundred and twenty-nine, inclusive, three per cent;

69 from the first day of April, nineteen hundred and twenty-
70 nine, to the thirty-first day of March, nineteen hundred
71 and thirty-four, inclusive, four per cent; from the first day
72 of April, nineteen hundred and thirty-four, to the thirty-
73 first day of March, nineteen hundred and thirty-nine, in-
74 clusive, five per cent; and on and after the first day of
75 April, nineteen hundred and thirty-nine, six per cent.

76 (d) Except as provided in subsection *e* of this section,
77 the assessors of each city or town shall annually, between
78 the first day of April and the last day of July, assess and
79 levy a forest product tax to the persons or corporations
80 owning classified land upon the first day of April in such
81 year. They shall receive as true the reports required in sub-
82 section *a* of this section, except as such reports may be re-
83 vised in accordance with the provisions of subsection *b*, but,
84 upon information, may add thereto the value of any products
85 not reported, and, upon information, may revise the amount
86 and valuations of products other than wood and of the
87 other income derived from classified land. Notification of
88 all assessments shall be sent to all taxable persons not later
89 than the first day of September in each year, and taxable
90 persons aggrieved by such assessments, other than assess-
91 ments of wood, may apply for an abatement thereof in
92 the manner provided by sections seventy-two to eighty-
93 two inclusive of Part I. of chapter four hundred and ninety
94 of the acts of the year nineteen hundred and nine.

95 (e) Any owner, other than a corporation, of classified
96 lands may remove from said lands annually an amount
97 of wood not exceeding twenty-five dollars in stumpage
98 value, without making the reports, giving the notifications,
99 or being liable for the tax required in subsections *a*, *b*, *c*
100 and *d* of this section: *provided*, that said wood is for his
101 personal use, or for the use of his tenant. Such wood may
102 be subsequently sold upon making the aforesaid reports and
103 paying forest product tax thereon.

104 (f) Forest product tax shall be a lien upon the land in
105 respect of the product or income from which it was assessed,
106 and shall be collected in the manner prescribed in chapter
107 four hundred and ninety of the acts of the year nineteen
108 hundred and nine: *provided*, that if the assessors of the city
109 or town, to insure the collection of said tax, deem it neces-
110 sary, they may require of the owner either a cash deposit of

111 the amount of forest product tax as estimated by said
112 assessors, or, at his option, a bond with good and sufficient
113 sureties conditioned upon the payment of said tax when
114 levied. When such demand is made, the wood in respect of
115 which forest product tax is payable shall not be removed
116 from the land until the owner has complied with said de-
117 mand, and any person who shall so remove said wood shall
118 be liable to a fine of not more than five hundred dollars,
119 or imprisonment for not more than sixty days, or both such
120 fine and imprisonment. Forest product tax shall constitute
121 a lien upon the wood or other product in respect to which it
122 was assessed for so long as said wood or other product is in
123 the possession of the owner of the land from which it was
124 produced, or of a person taking the same with knowledge
125 that said assessors have required security for said tax and
126 that such security has not been given; and any person taking
127 said wood with such knowledge shall be liable for the amount
128 of said tax.

FOREST RESERVATIONS.

1 SECTION 9. Any city or town may, by vote of its
2 legislative authorities, and with the consent of the owner
3 of the land, exempt from the taxes imposed by this act,
4 except forest product tax, tracts of woodland in said city
5 or town. Such tracts of land shall, upon classification, be
6 known as forest reservations.

1 SECTION 10. The owner of said land shall, within thirty
2 days after such action of the legislative authorities of the
3 city or town, file with the clerk thereof his written consent
4 to the classification of said land as forest reservation, and if
5 said land is not already classified, shall also file two copies
6 of a plat of said land or the description thereof by metes and
7 bounds contained in the last conveyance of the property.
8 The aforesaid clerk shall forthwith classify said land as
9 forest reservation, and shall cause a certificate of such classi-
10 fication to be duly recorded in the registry of deeds as pro-
11 vided in section four of this act; said classification to be-
12 come effective on the first day of the following April. If
13 said land has previously been classified as wood lot, said
14 clerk shall, upon classifying said land as forest reservation,
15 cancel its classification as wood lot, and shall forthwith
16 notify the assessors of the city or town of such cancellation.

1 SECTION 11. Land classified as forest reservation under
2 the provisions of this act shall at all times be open to the
3 public, to be used by them in such ways as shall be con-
4 sistent with the safety and proper care of the trees growing
5 thereon. The legislative authorities of the city or town shall
6 make regulations for the use of said land by the public, and
7 the state forester shall, from time to time, advise the au-
8 thorities of the cities and towns of the commonwealth as
9 to the proper care and regulation of forest reservations.

1 SECTION 12. Any city or town may by vote of its
2 legislative authorities, and by notifying the owner of any
3 forest reservation, not less than thirty days prior to the
4 first day of April in any year, terminate the classification of
5 such tract of land as forest reservation. Any owner of such
6 forest reservation may, by notifying the clerk of the city or
7 town not less than thirty days before the aforesaid first day
8 of April in any year, withdraw such land from such classifica-
9 tion. In either case, the clerk of said city or town shall, on
10 the following first day of April, classify said land as wood lot,
11 and file for recording a certificate of such classification in
12 the registry of deeds as provided in section four of this act.

CONSOLIDATION OF CLASSIFIED LANDS.

1 SECTION 13. On and after the first day of April, nine-
2 teen hundred and nineteen, any owner of two or more adjoin-
3 ing tracts of land classified in any city or town as wood lot
4 or plantation, and any owner of more than one hundred acres
5 of land so classified, whether said land consists of adjoining
6 tracts or not, may apply for the consolidation of said tracts
7 under a single classification. Said application shall be in such
8 form as the tax commissioner shall from time to time pre-
9 scribe, and shall be filed with the clerk of the city or town in
10 which said tracts are situated. The aforesaid clerk shall
11 forthwith classify said tracts as a single tract, shall record
12 such classification in the registry of deeds as provided in sec-
13 tion four of this act, and shall receive therefor a fee, together
14 with the fee required for such recording, as provided in said
15 section four. He shall forthwith notify the assessors of the
16 city or town of such consolidation, and the assessors shall, on
17 or before the first day of the following April, consolidate the
18 valuations and assessments of all taxes imposed by this act,

19 which taxes shall, on and after the aforesaid first day of
20 April, be levied and assessed in respect of the entire tract of
21 land classified, and not in respect of its constituent tracts of
22 wood lot or plantation. Such consolidated tract shall be
23 known as forest.

SALES OF PORTIONS OF CLASSIFIED LANDS.

1 SECTION 14. No sale or other conveyance of classified
2 land shall release the purchaser thereof or other person acquir-
3 ing an interest in such land from any obligation or liability
4 imposed by this act. Not less than ten days before the sale
5 or conveyance of classified land upon which forest product
6 tax has accrued or has been assessed, the owner of said land
7 shall notify the assessors of the city or town of the con-
8 templated transfer, and said assessors may, if they deem it
9 necessary to insure the collection of said tax, require of the
10 owner either a cash deposit of the amount of forest product
11 tax estimated to have accrued or actually assessed, or, at
12 his option, a bond with good and sufficient sureties con-
13 ditioned upon the payment of said tax.

1 SECTION 15. In case of the sale of any portion of any
2 tract of land, the owner of which is liable to the payment
3 of forest commutation tax, the parties to such sale shall
4 agree upon an equitable division of the aforesaid tax. A copy
5 of this agreement signed by all of the parties to such con-
6 veyance shall forthwith be filed with the assessors of the city
7 or town, who shall accept the aforesaid division as the basis
8 for the future assessment and levy of forest commutation
9 tax, unless they find the aforesaid division so unequal as to
10 reduce the security of the city or town for the collection of
11 any part of the forest commutation tax thereafter. Until
12 such division of tax shall have been accepted by the aforesaid
13 assessors, the parties to any such aforesaid sale or conveyance
14 and their heirs and assigns shall be jointly and severally
15 liable for all forest commutation taxes thereafter assessed
16 in respect to the entire tract of land.

WITHDRAWALS.

1 SECTION 16. Land classified under this act may be with-
2 drawn from classification by the owner at any time upon
3 payment to the authorities of the city or town of the amount

4 of forest land tax and forest commutation tax which may be
 5 due for the current year and for all previous years, and upon
 6 payment of forest product tax upon the stumpage value of
 7 the trees then standing upon said land, as though the said
 8 trees had then been cut. The owner shall give the assessors
 9 of the city or town notice in writing of his desire to withdraw
 10 said land from classification. The said assessors shall forth-
 11 with make a valuation of the trees then standing upon said
 12 land, and give notice of such valuation and of the amount of
 13 forest product tax due thereon for such withdrawal; and
 14 may require the forest warden of said city or town to give
 15 such assistance as may be necessary. If the owner of said
 16 land is aggrieved by the aforesaid valuation made by the
 17 assessors, he may, within ten days after such notice, appeal
 18 to the state forester or make a written request to the said
 19 assessors for an arbitration, which arbitration shall be in
 20 accordance with the provisions of subsection *b* of section eight
 21 of this act. Upon the payment of said forest product tax
 22 thereon and of all other taxes due on account of said land,
 23 said land shall be withdrawn from classification. The clerk
 24 of the city or town shall forthwith record a certificate of
 25 such withdrawal in the registry of deeds for the county in
 26 which said land is situated. The owner of said land shall
 27 pay to said clerk a fee of one dollar for each such certificate
 28 of withdrawal, and a fee of fifty cents for each subsequent
 29 copy thereof; and in addition, the usual fee for recording said
 30 certificate in said registry, which fee said clerk shall transmit
 31 to the registrar of deeds.

32 In case of all trees cut on said land within three years of
 33 the date of such withdrawal, a forest product tax shall be
 34 assessed in accordance with the provisions of this act; and
 35 if the amount of tax thus assessed in respect to said land shall
 36 exceed the amount of tax assessed and levied at the time of
 37 withdrawal, the owner shall be liable for the payment of
 38 such excess under the conditions and requirements of section
 39 eight of this act.

REPORTS OF ASSESSORS.

1 SECTION 17. The assessors of each city and town shall
 2 annually report to the tax commissioner, in such form as he
 3 shall from time to time prescribe, the following information:—
 4 (a) The amount of land classified in accordance with the
 5 provisions of this act.

6 (b) The valuation of said land for the assessment and levy
 7 of forest land tax.
 8 (c) The amount of forest land tax levied and assessed.
 9 (d) The amount of forest commutation tax levied and
 10 assessed.
 11 (e) The amount and valuation of wood and the value of
 12 other forest products and income upon which forest product
 13 tax is levied and assessed.
 14 (f) The amount of forest product tax levied and assessed.

DUTIES OF TAX COMMISSIONER.

1 SECTION 18. The tax commissioner shall from time to
 2 time prepare instructions which shall be followed by the
 3 assessors of the cities and towns in the assessment and levy
 4 of the taxes authorized by this act, and shall prescribe such
 5 forms and procedure as he may deem necessary for the ad-
 6 ministration of said taxes. He shall compile and cause to be
 7 printed annually in the aggregate returns required by section
 8 sixty-two of Part I. of chapter four hundred and ninety of
 9 the acts of the year nineteen hundred and nine the informa-
 10 tion furnished by the assessors of the various cities and
 11 towns in accordance with the provisions of section seventeen
 12 of this act.

13 He may also call upon individuals, firms or corporations
 14 owning land classified under this act for a statement of the
 15 amount and value of the wood or other products and income
 16 derived from the said land, and may examine the books,
 17 accounts and papers of such individuals, firms and corpora-
 18 tions so far as may be necessary for the verification of the
 19 said statement.

1 SECTION 19. In determining the basis for the apportion-
 2 ment of state and county taxes subsequent to the passage of
 3 this act, the tax commissioner shall not include in the valua-
 4 tion of property subject to taxation in any city or town, the
 5 valuation of trees standing upon land classified under this
 6 act. Of the whole amount of forest product tax levied and
 7 assessed in any city or town, ten per centum of said amount
 8 shall be for the use of the commonwealth, and the treasurer
 9 of each city or town shall, on or before the fifteenth day of
 10 November in each year, pay to the treasurer and receiver-
 11 general of the commonwealth the aforesaid proportion of
 12 forest product tax.

ADMINISTRATION.

1 SECTION 20. The state forester shall from time to time
2 issue such regulations as are required by sections twenty-one
3 and twenty-three of this act, and shall furnish copies thereof
4 free of charge to the clerks, assessors and forest wardens of
5 the cities and towns of the commonwealth and to such other
6 persons as may apply therefor.

1 SECTION 21. Owners of classified land shall, within
2 three years after the date of classification, seed or plant any
3 portion or portions of such tracts that are suitable for seeding
4 or planting and have not been naturally restocked: *provided*,
5 that with the written approval of the state forester, the time
6 for seeding or planting may be extended. The state forester
7 shall from time to time make regulations to insure such seed-
8 ing or planting, which regulations shall permit any approved
9 forestry methods, and shall not require the expenditure of
10 more than ten dollars per acre.

1 SECTION 22. Whenever any area of classified land equal
2 to or in excess of three acres in extent is cleared of trees, the
3 owner thereof shall either leave a suitable number of trees
4 to provide for the reseeded of said tract; or shall, unless said
5 land is naturally restocked within two years, reseed or plant
6 said land in accordance with the aforesaid regulations. If
7 said owner shall elect to leave seed trees, and said land is
8 not naturally restocked therefrom within a period of three
9 years thereafter, said owner shall reseed or plant said land or
10 any portions thereof, in accordance with the aforesaid regula-
11 tions of the state forester. In either of the above cases, the
12 state forester may extend the time for reseeded or planting.

1 SECTION 23. When trees are cut from any classified land,
2 the owner of said land shall make such disposition of the
3 slash as may be required by such regulations as the state
4 forester shall from time to time prescribe: *provided*, that such
5 regulations shall permit of any approved forestry methods.

1 SECTION 24. If any owner of classified land fails to comply
2 with the regulations of the state forester as to the seeding
3 and planting of the land or disposal of slash required under

4 sections twenty-two to twenty-four, inclusive, the state
5 forester may cause said land to be thus seeded or planted or
6 such slash to be disposed of, and the owner of said land shall
7 be liable to the commonwealth for the expense thereof:
8 *provided*, that such planting shall not exceed in cost ten
9 dollars per acre.

10 If said owner, after notification from the state forester that
11 the requirements of said regulations have not been complied
12 with, fails to comply therewith within a reasonable time
13 thereafter, the state forester, after hearing, shall have the
14 right to direct the clerk of the city or town to cancel the
15 classification of said land. Said clerk shall forthwith cancel
16 said classification, notify the assessors thereof, and record a
17 certificate of such cancellation in the registry of deeds.
18 Said assessors shall forthwith make a valuation of the trees
19 standing upon said land, and assess a forest product tax
20 thereon, which shall be forthwith levied and shall be collected
21 in accordance with the provisions of section eight of this act.

1 SECTION 25. For services rendered under the provisions
2 of sections two, seven, eight and sixteen, the forest warden of
3 a city or town shall receive from said city or town the com-
4 pensation provided by section twenty-three of chapter thirty-
5 two of the Revised Laws.

PENALTIES.

1 SECTION 26. Any applicant for the classification of land
2 under this act who fraudulently fails to disclose all encum-
3 brances thereon or interests therein, which then exist, shall be
4 punished by a fine of not more than one thousand dollars or
5 by imprisonment for not more than one year.

1 SECTION 27. Any person violating any requirement of
2 this act for which no specific penalty is elsewhere provided,
3 shall be punished by a fine of not more than one hundred
4 dollars.

ORGANIZATION AND TAXATION OF CORPORATIONS FORMED FOR
THE PURPOSE OF OWNING CLASSIFIED LANDS.

1 SECTION 28. Section seven of chapter four hundred and
2 thirty-seven of the acts of the year nineteen hundred and
3 three, as amended by chapter two hundred and eighty-six

4 of the acts of the year nineteen hundred and six, and chapter
5 five hundred and ninety-five of the acts of the year nineteen
6 hundred and twelve, is hereby further amended by adding at
7 the end of said section the following words: — *provided*,
8 *further*, that corporations formed for the purpose of owning
9 classified forest land under the provisions of the forest classi-
10 fication and taxation act may be organized without limitation
11 of the term of their duration, — so as to read as follows: —
12 *Section 7.* Three or more persons may associate themselves
13 by a written agreement of association with the intention of
14 forming a corporation under the above laws for any lawful
15 purpose which is not excluded by the provisions of section
16 one: *provided*, that the agreement of association of a corpora-
17 tion formed for the purpose of acquiring, holding, managing,
18 improving, leasing, buying and selling real estate shall state
19 the terms of the duration of the corporation, such term not
20 to exceed fifty years; *provided, further*, that corporations
21 formed for the purpose of owning classified forest land under
22 the provisions of the forest classification and taxation act
23 may be organized without limitation of the term of their
24 duration.

1 SECTION 29. In the taxation of corporate franchises, under
2 the provisions of sections forty to forty-three, inclusive, of
3 Part III. of chapter four hundred and ninety of the acts of
4 the year nineteen hundred and nine, corporations organized
5 for the purpose of owning land classified under the provisions
6 of this act shall be exempt from taxation upon such proportion
7 of their capital stock as is actually invested and employed in
8 the business of forestry upon land classified under the pro-
9 visions of this act.

REGISTRATION OF LAND NOW EXEMPT FROM TAXATION.

1 SECTION 30. Section six of Part I. of chapter four hundred
2 and ninety of the acts of the year nineteen hundred and nine
3 is hereby repealed, but this shall not affect exemptions exist-
4 ing at the date of the passage of this act. Owners of land
5 exempt from taxation under the provisions of said section
6 may, at the end of the period provided by said section,
7 classify said land as plantation under this act. When such
8 land is thus classified as plantation under this act, the

9 assessors shall not be required to value the trees standing
10 thereon, but shall make the other valuations required by
11 section two of this act.

1 SECTION 31. This act shall be known as the forest classi-
2 fication and tax act.

1 SECTION 32. This act shall take effect upon its passage.

APPENDIX D.

DRAFT OF AN ACT RELATIVE TO THE PURCHASE OF LANDS
FOR STATE FORESTS.

Be it enacted, etc., as follows:

1 SECTION 1. There is hereby established a state forest com-
2 mission, to be composed of three persons who shall be
3 appointed by the governor with the advice and consent of the
4 council, and shall serve without compensation. The term of
5 office of the members of the commission shall be six years,
6 except that when first appointed, one of the members shall be
7 appointed for six years, one for four years, and one for two
8 years, the member at that time appointed for six years to be
9 chairman. Thereafter one member shall be appointed every
10 second year.

1 SECTION 2. The commission shall have power to acquire
2 for the commonwealth by purchase or otherwise, and hold,
3 woodland or land suitable for timber cultivation within the
4 commonwealth. The commission, after a public hearing,
5 shall have power to sell or exchange any land thus acquired
6 which in the judgment of the commission can no longer be
7 used advantageously for the purposes of this act. The state
8 forester shall, at the request of the commission, examine and
9 report upon the advisability of acquiring any land which the
10 commission contemplates acquiring for the purposes of this
11 act, and no land shall be thus acquired until the same has
12 been thus examined and reported upon by the state forester.
13 The average purchase price for each conveyance of such land
14 shall not exceed five dollars per acre.

1 SECTION 3. Lands acquired under the provisions of this
2 act shall be known as state forests, and shall be under the
3 control and management of the state forester. He shall
4 proceed to reforest and develop such lands and shall have
5 power to make all reasonable regulations which in his judg-
6 ment shall tend to increase the public enjoyment and benefit

7 therefrom, and to protect and conserve the water supplies of
8 the commonwealth. The state forester shall keep and shall
9 publish in his annual report an account of all money invested
10 in each state forest, and of the annual income and expense
11 of each forest.

1 SECTION 4. In the reforestation, maintenance and de-
2 velopment of the lands purchased under this act, the state
3 forester shall, so far as expedient, obtain the labor necessary
4 therefor under the provisions of chapter six hundred and
5 thirty-three of the acts of the year nineteen hundred and
6 thirteen.

1 SECTION 5. Land acquired under the provisions of this
2 act shall be exempt from taxation; but the commonwealth
3 shall reimburse cities and towns in which such lands are
4 situated for taxes lost by reason of their acquisition, in the
5 same manner and to the same extent as in the case of lands
6 acquired for public institutions under the provisions of
7 chapter six hundred and seven of the acts of the year nineteen
8 hundred and ten.

1 SECTION 6. The sum of fifty thousand dollars may be ex-
2 pended annually for five years by the state forest commission
3 in the acquisition of lands under the provisions of this act:
4 *provided*, that the said commission may, at its discretion,
5 expend a portion of said sum, not to exceed ten thousand
6 dollars, in the maintenance, development and reforestation
7 of said lands. If any part of said fifty thousand dollars re-
8 mains unexpended at the close of any year, the balance may
9 be expended in the following year. The said commission may
10 also expend not more than two thousand dollars annually for
11 its necessary expenses incurred in carrying out the provisions
12 of this act.

1 SECTION 7. The state forester shall use the appropriations
2 provided by chapter four hundred and seventy-eight of the
3 acts of the year nineteen hundred and eight as amended, for
4 the maintenance, development and reforestation of lands
5 acquired under the said act, and under the provisions of this
6 act.

1 SECTION 8. All moneys received by or payable to the
2 commonwealth or anyone acting on its behalf under the pro-
3 visions of this act shall be paid into the treasury of the
4 commonwealth.

1 SECTION 9. This act shall take effect upon its passage.

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**END OF
TITLE**